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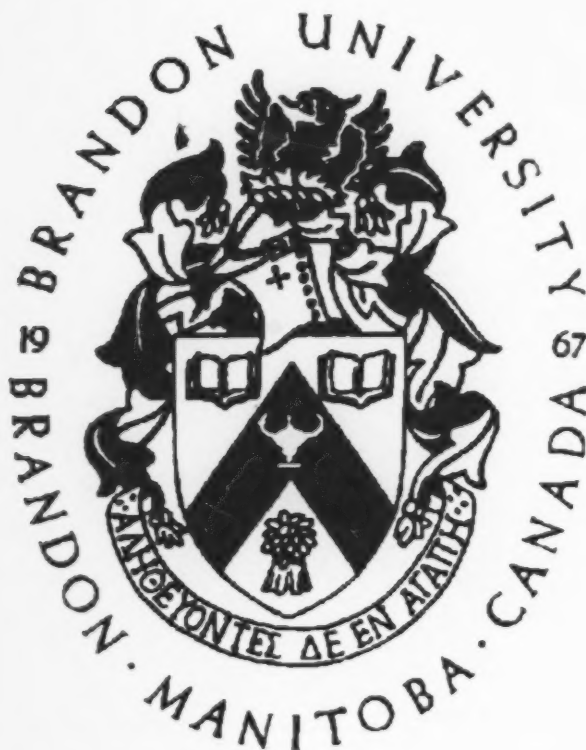
ABSTRACT

Manitoba's secondary school system is under increasing pressure to respond to economic and social changes transforming the province. This report explores existing strategies related to curriculum development and adaptation, instruction, assessment, and leadership that could be used to restructure Manitoba secondary schools. A literature review examines the meaning of restructuring; restructuring rationale; history of high school reform; restructuring strategies for curriculum, instruction, assessment, and leadership; and special concerns of small rural secondary schools. Also reviewed are the structure and goals of secondary education in Manitoba, as well as current practices in curriculum, instruction, assessment, and leadership. Fifteen secondary schools in British Columbia, Manitoba, Ontario, and Alberta were identified as conducting restructuring experiments. Qualitative case studies revealed that 11 of the schools used one or more of the following strategies: (1) restructured curriculum (curriculum adaptation to achieve magnet school status, curriculum negotiation between teachers and students, interdisciplinary curriculum); (2) restructured instruction (independent learning, project-centered learning, authentic learning based on a production process); (3) restructured student evaluation (performance assessment, alternative assessment); and (4) restructured leadership roles (transformational leadership, strategic planning). Ways that rural Manitoba secondary schools could implement such strategies are suggested. Contains 81 references. (SV)

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STRATEGIES FOR RESTRUCTURING MANITOBA SECONDARY SCHOOLS



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**Strategies For Restructuring
Manitoba
Secondary Schools**

by

Stephen C. Britton, B.A., B.Ed., M.Ed.

**The Rural Development Institute
Brandon University**

1994

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S.C. Britton, Author

PREFACE

The Rural Development Institute is pleased to announce the third in our series of publications on Rural Education Research. Joan Rollheiser, Administrative Assistant at RDI, prepared the document for publication. We thank Stephen Britton for his efforts to complete the report for publication. His background and experience put him in a unique position to address the issue of restructuring secondary education.

Dr. John Didyk of Manitoba Education and Training, and Bob Grodzik of Manitoba Rural Development assist in the Rural Education Research Program.

Dr. R. C. Rounds, Series Editor
Director RDI

ABSTRACT

The author examines existing curriculum, instruction, assessment, and leadership strategies available to school and divisional administrators in restructuring urban and rural secondary schools in Manitoba.

Qualitative analysis of restructuring projects implemented in Canadian secondary schools is made and the results indicate that the strategies employed can be adopted within the provincial framework established by Manitoba Education and Training. A series of recommendations concludes the study.

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INTRODUCTION

Statement of the Problem

Manitoba's secondary school system is under increasing pressure. Post-secondary institutions, governments, employers, students, and parents throughout the province are calling for it to respond to the economic and social changes which are transforming the province. Demands for a more responsive secondary school system are being made against a background of public debt levels that make increased spending on education impossible.

Manitoba's economy has undergone considerable change over the last three decades. Its manufacturing, transportation, agriculture, and resource extraction industries, once major employers, have witnessed "a continuing shift in employment from goods producing industries to service industries" (Manitoba Education and Training [MET], "Partners in Skill Development" [STAC], 1990:9). Although employment in service industries is often low salaried and insecure, the need for highly skilled workers in knowledge-intensive service sector industries is growing.

Manitoba's economic prosperity always has depended on international markets, but "the shift from a resource-based to information-based economy, together with the rapid introduction and expanding use of new technologies in the workplace, is dramatically altering the composition of skills in demand" (STAC, 1990:11).

Employers need workers who are able to think, learn, communicate, and work with others while demonstrating positive attitudes, responsibility, and adaptability (Corporate Council on Education [CCE], 1992). Acquisition of these skills is especially critical in rural areas where community survival will depend, in large part, on developing new enterprises to complement and replace traditional economic activities.

Economic change in Manitoba has been accompanied by social change. Single parent, or working parents family structures are common in Manitoba (MET, Building A Solid Foundation For Our Future [Building], 1991). Women, aboriginal people, and immigrants represent the most rapidly growing segments of the labour pool (MET, STAC, 1990). However, women often are under-represented in the scientific and technical fields (MET, Building, 1991), and "only 16% of on-reserve Native youth complete secondary school" (MET, STAC, 1990:7). Approximately 30 percent of Canadians leave high school before graduation (Economic Council of Canada [ECC], 1992). This group, unable to access employment opportunities, accounts for the recent increase in social problems and represents a growing underclass.

Manitoba secondary schools, however, have not adapted to these changes. The high school system may adequately prepare approximately 30 percent of students for community college or university (ECC, 1993), but the remaining 70 percent do not develop the knowledge, attitudes, and skills necessary to function in a modern economy. It is, then, necessary to restructure the provincial secondary school system to more effectively meet the needs of the majority of students in the province.

Purpose and Limitations of the Study

The primary purpose of this study is to examine existing curriculum development/adaptation, instructional, assessment, and leadership strategies school and divisional administrators could use to restructure urban and rural secondary schools in Manitoba. It is the author's contention that educational administrators in Manitoba can implement these strategies to improve the achievement of educational goals without increases in cost. Educational research associated with rural secondary education is limited. Therefore the study's

findings should be particularly useful to rural divisions lacking sufficient resources to carry out an in-depth investigation of the restructuring process.

It is not the purpose of this study to provide a definitive examination of theories of curriculum, instruction, assessment, and educational leadership. These interrelated topics, while critical to any understanding of restructuring, are narrowed to reflect a general application to the restructuring process and secondary schools. Nor is this study a restructuring road map or recipe book. Each high school, or school division, must approach restructuring in the context of both its educational goals, values, and traditions and the policy framework established by provincial governments.

Approach to the Problem

Canadian secondary education is delivered by organizations which range from large urban secondary schools with enrolment as high as 3000 to rural/urban collegiates and high schools with populations from fewer than 100 to more than 900. Each secondary school is shaped by unique external and internal factors. For these reasons it is useful to approach the question of restructuring Manitoba's secondary schools by way of holistic, value-bound, and flexible methods. That is, by using a qualitative inquiry approach.

Any examination of complex educational organizations requires the identification of those basic assumptions which guide the research. They are important because they establish the belief system which frames the investigation. In this study they are as follows:

1. Learning is the essential purpose of all high schools.
2. All secondary school students are capable of learning.
3. Many secondary school students are not learning well.
4. Restructuring curriculum, instruction, and assessment is critical to improved high school learning.
5. If initiated locally, such restructuring is possible within the framework established by Manitoba Education and Training.
6. Competent leadership is essential to restructuring curriculum, instruction, and assessment practices.

Definition of Terms

The principal terms in this study are drawn from various sources in the educational literature. Several terms have been adapted and modified relative to Canadian education and tradition. The key terms are as follows:

In this study the term **restructuring** refers to the process of improving student achievement by radically altering the fundamental components of secondary school education: curriculum, instruction, and assessment. Changing instructional practices, curriculum development and adaptation processes, and assessment methods requires that stakeholders in the secondary school system rethink their existing beliefs about teaching and learning. Educational administrators, in particular, are responsible for initiating, implementing, supporting, managing, and evaluating the restructuring process.

Administrators who lead the restructuring process promote activities which challenge existing assumptions about learning. They support stakeholder development and implementation of more effective curriculum development/adaptation, instruction, and assessment strategies within secondary schools.

Improved achievement refers to students' synthesis and application of knowledge rather than memorization of information. This study will argue that an explicit connection exists between improved student learning and the restructuring of curricular, instructional, and assessment practices.

Stakeholders are members of the community with direct or indirect interest in the success of public schools. They include students, parents, teachers, public school administrators, professionals, business owners, labour leaders, post-secondary school teachers and administrators, public administrators, and politicians.

Accreditation is a school evaluation process initiated by a provincial education ministry. The accreditation process includes parents, teachers, administrators, and students. Accreditation is an optional process performed at the request of school stakeholders by a group of provincial officials using an established school assessment criteria.

In this study the term **CURRICULUM** refers to the interrelationship of students, teacher, and content within the learning environment. This definition is shaped by each teacher's curriculum orientation.

The word **discipline** as used here refers to the organization of knowledge into specific subject areas such as History, Science, Mathematics, or Art.

Curriculum orientation is based on the teacher's belief structure relative to curriculum. Teachers may adopt, for example, a transmission, transaction, or transformation orientation toward curriculum.

A **transmission**, or traditional, **orientation** toward curriculum is organized around content and is one in which the teacher's role is to control student acquisition of curricular content.

A **transaction orientation** allows a greater degree of student flexibility in content choice. Students are encouraged to think about content in relation to process.

A **transformation orientation** de-emphasizes content and teacher control while encouraging students to become active and independent participants in learning. The transformation orientation considers student academic, social, and personal growth as being central to learning.

A **holistic curriculum** is one developed on the assumption that students learn most effectively when teachers provide opportunities to interconnect with the cognitive, aesthetic, moral, physical, and spiritual aspects of the learners' world.

In this study **curriculum negotiation** is the process whereby students and teacher determine course objectives, content, classroom organization, instructional methods, and assessment procedures together. The purpose of negotiation is to promote student ownership of the learning process.

An **interdisciplinary curriculum** is one in which the examination of topics, themes, or issues involves more than one discipline.

Curriculum integration is a process involving the linking of different disciplines in the planning and development of an interdisciplinary curriculum.

Curriculum adaptation is a process involving school-based selection, from a prescribed provincial curriculum, and creation of appropriate learning activities, instructional methods, and assessment procedures for a student, class, or school.

The **operational curriculum** is the actual curriculum implemented in classrooms.

INSTRUCTION refers to student engagement in learning while in the classroom.

Direct instruction is the use of didactic questions, drill and practice, demonstrations, and lectures to engage students in learning.

Differentiated instruction is the arrangement of learning experiences which accommodate and promote student diversity.

Individualized instruction is the division of a transmission oriented curriculum into small learning segments thus enabling students to engage content at an individual rate.

Constructivism means the active construction of meaning through comparison of old knowledge with new information and the subsequent improvement of meaning through social interaction.

Resource-based learning is the active interaction of students, teachers, and teacher-librarians with a wide range of print, non-print, and human resources. Resource-based learning strategies are designed to accommodate student diversity, to enable students to learn how to learn, and to encourage independent and lifelong learning.

Authentic learning is an instructional experience which requires students to work in groups on realistic problems, read original documents, and inquire into the real world.

Project-based learning strategies employ single themes, issues, problems, or topics to focus the application of knowledge or skills.

Production-driven learning strategies are realistic learning projects which involve the production of a specific product. Products include items such as books, hand-made paper, various services, or entertainment.

Independent learning strategies are designed to encourage student responsibility for individualized learning. Independent learners organize time, technology, and human resources to accommodate individual learning styles.

Alternative schools accommodate the specific learning needs of students who have not experienced success in regular educational programs.

Magnet schools, in the Canadian context, are district-wide, open-enrolment, and non-selective public institutions thematically organized around a curriculum, instruction, or belief system.

Assessment is the process of monitoring, measuring, and reporting student progress.

Learning outcomes are demonstrable skills, values, and knowledge which stakeholders identify as indicators of student learning.

An **assessment framework** is an assessment plan based on orientation to curriculum and instruction. An assessment framework includes a stakeholder statement of valued learning outcomes and generally accepted school or division wide guidelines outlining assessment methods and reporting procedures.

Alternative assessment refers to assessment strategies that differ from standardized and timed testing instruments used in many classrooms.

Performance assessments are student demonstrations of application of knowledge and skills in different contexts. Demonstrations consist of a variety of student exhibitions including seminars, presentations, or position papers.

Authentic assessment involves a situation in which a student demonstrates the application of knowledge and skills in a real-life context.

Rubrics are grading plans teachers develop to link curriculum objectives and assessment criteria to learning activities.

Reporting is the communication of student assessment data to system stakeholders.

LEADERSHIP is the process of influencing others in an organization to achieve mutually agreed upon purposes or goals.

Traditional leadership describes the administrator whose primary function includes organizational control, direction, planning, budgeting, and supervising.

Instructional leadership styles, while retaining management functions common to traditional administrators, make improving student learning opportunities a central administrative responsibility.

Transformational leadership refers to the style of change-oriented administrators whose priorities of vision building, professionalism, collaboration, collegiality, and staff empowerment supersede traditional and instructional leadership roles. The primary function of a transformational leader is to initiate and manage change in educational organizations in order to improve learning.

Research Design

General agreement that secondary school education must change has encouraged administrators to initiate limited restructuring experiments in high schools across Canada. These schools, it is believed, provide data pertinent to the critical examination of restructuring strategies and have led to the adoption here of a qualitative multi-case study (see also Merriam, 1988).

Preliminary Case Selection

The following criteria were used in selecting schools for case study:

1. Experienced researchers and authors, thoroughly grounded in restructuring theory, identified the school as conducting restructuring experiments.
2. Restructuring achievements at the school were supported by private/public grants.
3. Recognition of the school's restructuring program was widespread.

Application of the above criteria resulted in the identification of 15 schools and 1 central office suitable for in-depth analysis. The 16 cases represented a complete spectrum of school organization and approaches to restructuring. Actual site names and locations have been altered to safeguard teachers, administrators, and students from unwarranted callers/visitors.

Preliminary cases were as follows:

- | | |
|--|------------------|
| 1. MacDonald Junior Secondary School | British Columbia |
| 2. MacKenzie Technical School | Manitoba |
| 3. Abbot Secondary School | Ontario |
| 4. Tupper Community School | Manitoba |
| 5. Laurier High School | Alberta |
| 6. St. Laurent Catholic Secondary School | Ontario |
| 7. Borden Junior High School | Ontario |

8. King Collegiate	Ontario
9. Bennett School	Alberta
10. Meighen High School	Alberta
11. Diefenbaker Secondary School	British Columbia
12. Pearson High School	Manitoba
13. Clark Secondary School	British Columbia
14. Trudeau High School and Turner School	Manitoba
15. Whitefish Bay Board of Education	Ontario

Data Collection

Access to pertinent data required one or two day school visits. Data, generated through interviews, observation, and public documents, were filtered by the researcher's twenty years of secondary school teaching and consulting experience. Substantial groundwork in restructuring theory enabled the investigator to pursue curriculum, instruction, assessment, and leadership issues when they arose during the field visits.

Students, administrators, support staff, and teachers were interviewed at each field location. On-site interviews were both formal and informal. Clarification interviews were conducted following reorganisation of raw notes and audio tapes into formal case portraits.

Observation notes were compiled during in-school and out-of-school hours. In many cases outside observation occurred in early morning or evening while students were not at school. Interior observation occurred in classrooms, hallways, staffrooms, student cafeterias, offices, gymnasias, laboratories, auditoria, theatres, and designated smoking areas. Written or audio records were compiled at each location.

Documents collected at each site supplemented interview and observation data. Student agendas, notebooks, assignments, projects, evaluation instruments, and writing samples provided insight into curriculum, instruction, and assessment techniques. Staff development plans, newsletters, course description guides, parent/student handbooks, organization charts, timetables, policy manuals, calendars, mission statements, school video presentations, and similar types of material assisted in developing a case portrait.

On site data collection was separated into 11 distinct evaluation criteria. Designated criteria insured a thorough collection of raw data related to each school's operation. Raw data related to the criteria became the basis of each case portrait.

The criteria were as follows:

1. School Setting

- Where is the school?
- How old is the school?
- What is the socio-economic status of the neighbourhood?
- Has the school been vandalized?
- What is the condition of the sport facilities, courtyard, and entrances?

2. Basic Information

History

- When was the school built?
- What additions/renovations have been made?

Present Status

- What is present enrolment?
- What is the catchment area?
- How many teachers, administrators, and support staff work at the site?
- What grades and programs are offered at the school?
- What is the school's status in the district? (magnet? technical? alternative? immersion? regular? IB? AP?)

3. Students

- Are there visible minorities in the school?
- What do students wear?
- Are there school uniforms?
- What are student attitudes toward visitors?
- How do students get to school?

4. School Climate/Tone

- What is the condition of classrooms, hallways, washrooms, cafeterias, library, and gymnasias?
- Do students relate well with each other?
- Are specific student groups clustered in certain areas of the school?
- Do students talk openly with visitors? teachers? administrators?
- Do students demonstrate school pride?
- Do students express satisfaction with the school?
- Have there been violent incidents at the school?
- Are student achievements recognized throughout the school?
- Is there tension in the school?
- Are teachers and administrators present in the halls?
- Is academic achievement valued at the school?
- What are the behavioural expectations of students?
- Is school climate linked to curriculum, instruction, and assessment strategies?

5. Curriculum

- What programs/courses are offered at the school? Are extracurricular activities linked to curriculum?
- Do teachers and administrators understand curricular concepts?
- Is there a curriculum adaptation process in place?
- Does curriculum reflect the school's ethnic character?
- Is curriculum interdisciplinary?
- Is curriculum negotiated between students and teachers?
- Do students value what they are learning?

6. Instruction

- Are instructional activities meaningful and learner-centred?
- Are students engaged in learning?
- Is an obvious variety of instructional strategies used in this school? (direct, indirect, experiential, independent, project-based)
- Are learning activities meaningful and relevant to students?

How do teachers and students relate in the classroom?
Are teachers and administrators aware of differences in learning strategies?
Do students discuss classroom experiences in positive terms?

7. Assessment

Who develops assessment criteria in the school?
What is the role of formative examinations in the school?
Do students believe they are assessed fairly?
Do students value grades and marks?
Do administrators and teachers value alternative assessment strategies?
How is progress reported to parents?
Are alternative assessment strategies used in the school?

8. Organization

How is time organized in the school?
Does timetable organization reflect curriculum and instructional strategies?
Are students satisfied with the organization of time in the school?
Do students have teacher advisors?

9. Leadership

Who are the transformational leaders in the school?
What are teacher attitudes toward the administration?
What are student attitudes toward the administration?
What are administrator attitudes toward teachers?
What is the leadership style in the school? (bureaucrat, autocrat, missionary, deserter, developer, executive, compromiser)
Are school leaders transformational?
Is the purpose of this school clearly articulated by school leaders?

10. Professional/Staff Development

What are teacher attitudes toward staff development?
Does the school have a clearly articulated mission, goal, or learning belief statement?
Do teachers and administrators share professional development decisions in the school?
How is staff development organized in the school?
Is staff development proactive or reactive?
Is staff development linked to improved learning?

11. Change

Is change perceived as a threat or opportunity?
Who manages school change?
How do teachers feel about curriculum, instruction, and assessment changes?
Do teachers and administrators feel empowered to effect change in this school?

Data Grouping and Analysis

After completion of the 15 portraits, each case was analyzed as follows:

Stage 1 - The Restructuring Process

The following questions were posed:

1. Was the staff in the process of restructuring:
 - a. curriculum adaptation strategies?
 - b. curriculum implementation processes?
 - c. instructional practices?
 - d. assessment practices?
2. Did school or district administrators initiate, support, and lead restructuring processes?

Viewed against these questions, Pearson High School, MacKenzie Technical School, Abbott Secondary School, and Clark Secondary School were deleted; Pearson, MacKenzie, and Abbot, while innovative schools, were not restructuring curriculum, instruction, or assessment at an in-depth level; and at Clark, profound teacher dissatisfaction with the district and school administration rendered restructuring impossible. This left 11 cases.

Stage 2 - Relevance for Manitoba Secondary Schools

At this stage the following 8 questions were posed:

1. Which cases are examples of restructuring curriculum?
2. Which cases of curriculum restructuring are most adaptable to Manitoba secondary schools?

Cases illustrating curriculum restructuring are:

- a. Bennett High School (Alberta) - Bennett is an excellent example of the adaptation of provincial curriculum to the needs of magnet school students.
- b. King Collegiate (Ontario) - King is an example of high school restructuring through curriculum negotiation. Curriculum development at King encourages student ownership of the high school program.
- c. Meighen High School (Alberta) and Diefenbaker Secondary School (British Columbia) - Meighen and Diefenbaker are examples of interdisciplinary curriculum. At Meighen the disciplines are integrated along topic or project lines. Diefenbaker's interdisciplinary curriculum project integrates the humanities across grade levels.

Administrators at the four schools understood curriculum development, adaptation, and implementation to be central to restructuring. As such, curriculum is the catalyst for change in each school. Moreover, the centralized nature of the Ontario, Alberta, and British Columbia secondary school curriculum is comparable to the situation that exists in Manitoba.

3. Which cases are examples of restructured instructional practices?
4. Which examples of restructured instructional practices are most adaptable to Manitoba secondary schools?

Cases illustrating restructuring instructional practices are:

- a. Laurier High School (Alberta) - At Laurier flexible and realistic instruction is the result of a combination of independent and project-based learning.
- b. St. Laurent Catholic Secondary School (Ontario) - St. Laurent has modified the Laurier principle of student independence with modern technology to support independent learning.
- c. Tupper Community School (Manitoba) - Tupper is an early and middle years school where instruction has been restructured around problem-solving and production-driven learning.

Common in each case is staff acceptance of the idea that successful restructuring depends upon a new form of teacher and student interaction.

5. Which cases are examples of assessment restructuring?
6. Which assessment restructuring examples are adaptable to Manitoba high schools?

Cases illustrating restructured assessment are:

- a. MacDonald Junior Secondary School (British Columbia) - At MacDonald the introduction of student-led conferences initiated a restructuring process through assessment.
- b. Trudeau High School and Turner School (Manitoba) - Assessment practices at Trudeau High School illustrated alternative assessment strategies applied to an Environmental Studies course.

Examination of alternative assessment strategies and the implementation of student-led conferences are means to restructure high school education through assessment practices. The cases outlined are adaptable to all Manitoba high schools.

7. Which cases illustrate the leadership qualities needed by principals/superintendents to successfully restructure high schools?
8. Cases best representing leadership characteristics necessary for secondary school restructuring are:
 - a. Whitefish Bay Board of Education (Ontario) - James Weeks, Assistant-Superintendent, led a strategic planning process with a mandate to restructure Whitefish Bay School District.
 - b. Borden Junior High School (Ontario) - John Nicholson, the principal, initiated restructuring through the empowerment of staff and students.

Both cases demonstrate the importance of transformational leadership in restructuring secondary schools.

REVIEW OF THE LITERATURE

Literature pertaining to high school restructuring has been reviewed in the following areas:

1. meaning of restructuring
2. restructuring rationale
3. high school reform - historical overview
4. curriculum
5. instruction
6. assessment
7. leadership
8. small rural secondary schools

Works reviewed are selections of the most appropriate material available for each topic.

The Meaning of Restructuring

The term restructuring has become a general descriptor for any school reorganization effort to improve student preparation for life in a changing society. Conley (1993) defines it in terms of different levels of change that occur in schools. He describes change as renewal, reform, or restructuring. Renewal activities attempt to improve the effectiveness of an existing system. For example, introducing cooperative learning techniques to a high school staff may renew instruction, but fundamental assumptions about teaching/learning remain the same. Reform activities are policy, rule, or procedural changes which influence an entire system without stimulating fundamental change. Introduction of Senior 3 and 4 province-wide final examinations is an example of reform-oriented change. Restructuring activities, on the other hand,

change fundamental assumptions, practices, and relationships, both within the organization and between the organization and the outside world, in ways that lead to improved and varied learning outcomes for essentially all students (Conley, 1993:8).

Conley (1993) considers a vision of restructuring along a framework of 12 dimensions. These are subdivided into "central, enabling, and supporting variables" (p. 105). The central variables, forming the core of the learning process, are learner outcomes, curriculum, instruction, and assessment. Enabling and supporting variables are further removed from the learning process. For example, technology and school-community relationships are enabling variables; governance and teacher leadership are supporting variables.

Elmore (1991:11) develops three, rather than 12, dimensions of restructuring: the changing of the core technology of schooling, the occupational conditions of teaching, and the relationship between schools and their clients. The core technology of schooling includes the essential elements of the learning process: curriculum, instruction, and assessment.

According to David (1991), restructuring is the transformation of the present school structure into a flexible and decentralized system which is more responsive to continual societal and economic change. She views curriculum, instruction, and assessment as critical pieces of a system that must change if learning is to improve. Curriculum, instruction, and assessment change requires decentralization of the existing system. Decentralization is a shift in educational decision making from external administrators to school faculties.

Several authors, after defining restructuring, illustrate the restructuring process by examining a variety of restructuring experiments. Specific school or district research projects become the basis of restructuring

principles. David (1990) argues that initiating the restructuring process is the responsibility of district administrators.

David (1990) cites three district decentralization schemes as examples of restructuring in progress. Administrators in one district offered select schools extra professional development resources in exchange for sound staff proposals outlining plans to restructure. In another district, administrators created a professional development academy where administrators and teachers acquired the skills, knowledge, and experience necessary to restructure schools. David concludes that restructuring is a long-term, comprehensive decentralization process which is initiated through professional development. Autonomous schools, teachers who take risks, and new stakeholder coalitions require confident and appropriately prepared administrators.

Sizer (1992:141) creates a mythical team of teachers calling themselves "The Committee on Redesign of the Franklin High and Middle Schools." Sizer outlines the restructuring process and paints a detailed portrait of a restructured high school. Restructuring at Franklin begins with a re-examination of staff beliefs about teaching/learning and the purpose of high school. Next, the Committee generates a plan to alter curriculum development, instruction, and assessment practices at the school. The principles which guide change at Franklin are "the nine common principles" (Sizer, 1992:207) shaping the work of the Coalition of Essential Schools, a consortium of restructuring schools in Canada and the United States.

Conley (1992:390) describes the restructuring process by summarizing "emerging visions of educational restructuring." The following is a list of actions that Conley suggests cultivate school restructuring:

1. questioning the purpose and goals of education
2. integrating the curriculum
3. creating curriculum at the school and community level
4. making the learner the centre of instruction
5. emphasizing student success rather than sorting
6. personalizing instruction
7. integrating assessment into the learning process
8. democratising decision-making.

Conley (1993), Elmore (1991), Sizer (1992), and David (1990), while creating restructuring principles, provide few specific examples of successfully restructured schools.

Manitoba Secondary Schools and Restructuring

The necessity of restructuring Manitoba's secondary schools arises from changing socio-economic conditions and apparent shortcomings in the present system. Changing social and economic circumstances in Manitoba are outlined in two Manitoba Education and Training reports titled Partners in Skills Development: The Report of the Skills Training Advisory Committee [STAC] (1990) and Building a Solid Foundation For Our Future: A Strategic Plan 1991-96 (1991). The reports conclude that secondary schools fail to provide youth with the skills, attitudes, and knowledge necessary to insure Manitoba's social stability and economic prosperity.

The Economic Council of Canada, in Education and Training in Canada (1992), reports that community college and university bound students are well served by the education system. However, the 70 percent of students moving directly to the workplace are inadequately prepared for employment. The Council recommends that the Canadian education system be "comprehensive, open, responsive, and relevant" (p. 134). It calls for innovative and flexible secondary schools which recognize the skill, knowledge, and attitudinal needs of all students in the information age.

Sizer (1984), and Powell, Farrar, and Cohen (1985) believe the inability of secondary schools to respond to economic and social change is a consequence of structural weaknesses in the organization of high schools. Sizer (1984) asserts that teaching and learning are compromised by loyalty to an obsolete high school system. Daily high school schedules are fragmented into 50 minute slots in which teachers deliver curriculum to students. Students ensure graduation by accumulating enough information in each subject to complete required tests and earn a collection of unrelated credits. Sizer describes high schools as 'mindless' places which fail to challenge the intellect of most students.

Sizer also argues that educational bureaucracies are largely responsible for the inability of high schools to meet societal needs. Efforts by top-down bureaucrats to centralize and standardize high school education obstruct teaching and learning. Sizer suggests that centralized bureaucracies depend on quantitative data and norms to sort rather than educate students. Bureaucracies, which value control and order, often stifle initiative at the high school level.

High school education, according to Sizer (1984), is unrelated to broad educational goals. This is certainly the case in Manitoba's secondary school system. The educational goals outlined in the Report of the Panel on Educational Legislation Reform (1993) will be difficult to achieve given the present structure of the system. Sizer (1984) argues that modern secondary schools encourage student conformity and docility rather than inspire learning.

Powell, Farrar, and Cohen (1985) detail the weaknesses of high school education using a shopping mall metaphor. The authors view high schools as banal organizations structured to accommodate rather than challenge student differences. Like a shopping mall, modern high schools provide something for everyone. Powell, Farrar, and Cohen (1985:13) describe the high school curriculum as "horizontal, vertical, extra, and service."

Horizontal curriculum describes the variety of academic courses students may choose; vertical curriculum represents degrees of difficulty within each subject area. For example, many Manitoba high school students may select courses along a horizontal spectrum ranging from Health to Calculus. Most high school programs offer courses at a remedial level and progress vertically toward more advanced courses.

Powell, Farrar, and Cohen (1985) define the extracurriculum as learning opportunities which supplement the horizontal and vertical curriculum with non-credit activities. The service curriculum is that element of the high school program which attends to students' social and psychological needs. In Manitoba the extracurriculum includes drama groups, bands, as well as school teams. The service curriculum includes courses like Skills for Independent Living (Senior 2), Leadership, or Personal Development. Students are free to select courses from across the curriculum. The authors argue that, while a few students select challenging courses, most prefer a route requiring minimal engagement with learning.

Powell, Farrar, and Cohen (1985:66) contend that teachers and students reach informal classroom agreements or "treaties." These treaties are implied arrangements whereby students receive graduation certificates in exchange for regular attendance and compliant behaviour. Learning is not part of the bargain. Expectations of intensive student engagement with learning causes conflict. Powell, Farrar, and Cohen (1985) assert that the purpose of classroom treaties is to avoid such conflict.

Powell, Farrar, and Cohen (1985) claim there is little incentive for teachers and students to strike new bargains. Renegotiating treaties demands that teachers and administrators "alter the educational assumptions on which [the system] is based" (p. 309). Challenging high school mediocrity, according to the authors, requires innovation and revitalized stakeholder commitment at every level of the system.

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Manitoba Reform Efforts - Historical Overview

Recent attempts to reform high school education in Manitoba can be traced through an examination of sources such as The Secondary School: Report of the Core Committee on the Reorganization of the Secondary School [The Core Report] (1973), Challenges and Changes: The Report of Manitoba's High School Review Panel (1988), and Answering the Challenge: Strategies for Success in Manitoba High Schools (1990). Each report documents an attempt by Manitoba Education and Training to review, evaluate, and change the provincial secondary school system.

In The Core Report (1973) the Manitoba Department of Education introduced the credit system, programs, and graduation structure which remained relatively unchanged until 1990. The basic goals and principles section of the report alert educators to the "mindlessness" (p. 13) of the secondary school system. At the school level, however, the philosophical underpinnings were neglected. Administrators implemented the report's technical revisions to the high school program but largely ignored important suggestions for long-term educational change. For example, while high school students were streamed into University Entrance (00), General (01), Business Education (02), and Remedial (04) programs, teachers avoided the report's recommendation "to think seriously or deeply about the purposes or consequences of education" (p. 13).

Challenges and Changes (1988), the most comprehensive of the three reports, was released just prior to the 1988 provincial election. Two sections of the report, 'Characteristics of High School Learners' and 'Purposes of High School Education', are excellent points of departure for administrators considering high school restructuring. Many of the recommendations outlined there reappeared two years later in the succeeding government's plan for educational reform: Answering the Challenge (1990).

In Answering the Challenge (1990) practical and philosophical strategies designed to improve high school education are described. Again school and divisional level administrators, preoccupied by the practical problems created by a return to provincial examinations and the incorporation of grade 9 (Senior 1) into the high school program, overlooked the philosophical aspects of the document. Like its predecessor, Challenges and Changes (1988), the report offers school administrators a blueprint for restructuring.

Curriculum

A review of the literature on restructuring curriculum reveals that there is general consensus that successful restructuring depends upon commonly held values relative to curriculum orientation, adaptation, negotiation, and integration. Miller (1988) states that curriculum is best understood in relation to what educators believe about learning. He classifies these beliefs into "transmission, transaction, [or] transformation" orientations (p.4).

He asserts that educators who believe that curriculum is defined in terms of subject matter and syllabus are demonstrating the traditional, or transmission, oriented view of curriculum. Miller's transaction view of curriculum recommends educators develop curricular content relative to learner experience. Teachers demonstrate a transformation orientation if they recognize curriculum as the interaction of learner, teacher, environment, and content which leads to personal or social change.

Miller argues that teachers who share the transformation orientation view curriculum in holistic terms. Miller uses the term holistic to describe curriculum which focuses on the entire student. Holistic learning concentrates on understanding the relationship between "thinking and intuition, mind and body, individual and community, and between the various domains of knowledge" (p.3). Holistic curricula are created to counter the alienation and apathy created when curriculum is developed in fragmented or isolated contexts.

Creation of a holistic high school curriculum requires that teachers and administrators at each school become curriculum planners.

Connelly and Clandinin (1988) consider teachers, rather than system bureaucrats, the most capable curriculum developers. They suggest that teachers, through collaborative efforts within provincial curricular frameworks, are best able to adapt curriculum to student needs. They found that expanding the curriculum development process to include teachers, students, environment, and content produces curriculum of increased relevance. They maintain school restructuring efforts must include the essential contributions teachers make to curriculum development and adaptation. Failure to include teachers as principal players in curricular reform will thwart restructuring efforts.

Negotiating the curriculum is one way to initiate restructuring. Michalski (1980) contends that ensuring student involvement in setting objectives, choosing activities, and developing independence should be the responsibility of public school teachers and administrators. She argues that student inclusion in curriculum decision making ensures students develop democratic values. Failure to invite student participation in curricular decision making, on the other hand, produces alienation.

Boomer, Lester, Onore, and Cook (1992) take the position that curriculum negotiation obliges teachers to rethink and reinvigorate the teaching/learning process by reviving student questioning techniques, encouraging student cooperation, and cultivating student self-evaluation practices. They describe the negotiation process in the context of constraints imposed on teachers working within the educational bureaucracy. They examine the impact of limitations imposed by "non-negotiables" such as time, curriculum mandates, standardized testing, declining educational resources, and poor leadership (p. 287). Also, they view curriculum negotiation at the school or classroom level as a significant step toward school restructuring.

Another important step toward school restructuring is curriculum integration. Jacobs (1989) argues that integration is a method of curriculum rationalization which reduces learning fragmentation and therefore improves curriculum relevance. This author examines integration within the context of five curriculum designs: parallel, multidisciplinary, interdisciplinary, integrated-day, and complete program (p. 14). Parallel, multidisciplinary, and interdisciplinary approaches link the discipline around specific themes. The approaches differ in relation to the time and depth of subject connection to a specific theme. Parallel integration occurs when two subjects are sequenced around a common theme; interdisciplinary integration involves sequencing a wider range of disciplines around one theme. The integrated-day and complete programs create the curriculum from real community/student issues.

Fogarty (1992) examines integration by extrapolating ten curricular views from the concepts outlined by Jacobs (1989). Fogarty (1992:269) utilizes a lens metaphor to observe integration "within single disciplines, across several disciplines, and within and across learners." His survey begins with the fragmented view through "a periscope - one direction; one sighting; narrow focus" and concludes with the networked view through "a prism - multiple dimensions and directions of focus" (p. 284).

Drake (1993:33) employs the terms multidisciplinary, interdisciplinary, and transdisciplinary to define curriculum integration. Again, the multidisciplinary approach combines subjects by focusing on a single theme. The interdisciplinary approach links subjects across learning skills. For example, literacy could be a focus in all high school content areas. The transdisciplinary approach takes a real-world curricular focus where content emerges from issues and interests rather than from specific learning skills or prescribed themes. Like Jacobs (1989), Drake (1993) views integration as part of the restructuring process.

Instruction

Instruction plays a pivotal role in any learning. Contemporary thinking about instruction redefines the learning process by incorporating recent research related to student thinking and learning patterns with existing knowledge about how students learn.

Brooks and Brooks (1993) define the learning process as constructing new understandings by synthesizing new knowledge and experiences with previous knowledge. In order to enrich student learning, teachers must adjust practice to accommodate the different ways students learn. Brooks and Brooks regard the classroom as a place where student thinking, cooperation, and inquiry should be valued more highly than basic skills and the acquisition of disseminated information (p. 17). Also, they advise administrators to focus professional development activities on constructivist principles and practices in order to initiate restructuring.

Gardner (1985) and Marzano (1992) provide thorough examinations of thinking and learning theory. The authors extend the definition of the learning process to include greater understanding of how students learn. Gardner (1985) argues that students possess seven intelligences which teachers must activate to improve student learning: linguistic, logical-mathematical, musical, spatial, bodily-kinaesthetic, interpersonal, and intrapersonal. Gardner (1985) proposes that students educate their intelligences in infinitely different patterns. He suggests the intelligences reorganize themselves when performing different learning tasks. Given this understanding of the learning process, instructional practice which standardizes learning must change in favour of differentiated learning strategies.

Lazear (1992:138) applies Gardner's (1985) theory to classroom practice by dividing student learning into "basic, complex, higher-order, and vocational" skills. He then matches these skills to the seven intelligences. For example, under spatial intelligence Lazear registers simple drawing as a basic skill, then moves through progressively more complex skills until reaching vocational skills such as cartography or sculpting. He further expands this application process by creating subject/lesson ideas corresponding to the intelligences. For example, he lists murals under spatial intelligence for history and literature illustrations in language arts.

Marzano (1992:16) fashions learning theory around 5 attitudes, thinking processes, and habits he calls the 'dimensions of learning' and suggests these be used as restructuring tools. The dimensions of learning are as follows:

1. positive attitudes and perceptions
2. thinking involved in acquiring and integrating knowledge
3. thinking involved in extending knowledge and refining knowledge
4. thinking involved in using knowledge meaningfully
5. productive habits of mind (p. 136).

Like Gardner (1985), he provides teachers and administrators with a frame around which educators can focus a re-examination of instructional practices.

Brownlie and Close (1992:17) apply Gardner's research in the context of real classroom situations by creating a menu of 16 instructional strategies designed to "move students toward independent application of thinking." An excellent example of how the strategies are used is called "collaborative summaries" (p. 68).

A collaborative summary exercise occurred in a grade 9 Art classroom in which the authors were introducing a study of Impressionism. The class objective was to have collaborative student groups successfully negotiate the important elements of Claude Monet's painting style. The authors set up eight stations where student partners examined different Monet works and noted observations. After observing the eight prints, students moved into progressively larger groups to negotiate and compose a six item list

describing the essence of Monet's style. During the negotiation process the authors had students develop an outline of specific ways a group might best reach agreement.

Every Brownlie and Close (1992:16) strategy actively engages students in making connections to prior knowledge and, by processing information with others, creating new knowledge. Each strategy is

akin to developing maps with students. Students get the picture of the territory to be covered, identify where they are going, learn different ways of getting there, decide when they are going alone, and when they are going together. Ultimately, we can go to wherever we want on the map in a variety of ways. Choices grow rather than diminish.

Strategies outlined by Brownlie and Close create restructured instructional practices.

Assessment

Innovative thinking about curriculum and instruction also has prompted the development of new forms of student assessment. Conventional assessment methods, such as multiple choice tests and teacher assigned grades, fail to reflect the assessment requirements of restructured curriculum or instruction. **Alternative assessment**, the term describing restructured assessment, is a process in which students actively generate learning demonstrations rather than choose responses from teacher made tests or assignments (Herman, Aschbacher, & Winters, 1992, Marzano, Pickering, and McTighe, 1993).

Meyer (1992) and Marzano et al (1993) clarify the meaning of alternative assessment by defining two related terms: performance assessment and authentic assessment. Performance assessment "refers to a variety of tasks and situations in which students are given opportunities to demonstrate their understanding and to thoughtfully apply knowledge, skills, and habits of mind in a variety of contexts." Authentic assessment, while similar to performance assessment, is conducted in a 'real world' context (Marzano et al 1993:13).

Herman et al (1992) provide a detailed analysis of curriculum-instruction-assessment relationships, task and criteria development, and scoring methods. The authors describe in detail specific assessment methods such as interview techniques, logs and journals, portfolios, and observational/behavioral checklists.

McDonald et al (1993) focus on performance assessment through position papers, multi-media exhibitions, and Socratic seminars. They review three applications of this approach and describe changes in teacher thinking about assessment after exhibitions, for example, were used as an assessment method. Each example indicates that collaborative examination of assessment practices led to the reexamination of instructional and curriculum adaptation practices.

Marzano et al (1993), while linking performance assessment to Marzano's (1992) dimensions of learning model, produced a variety of valuable assessment tasks and tools. The tasks are designed to gauge student learning against comparable standards of complex thinking, information processing, effective communication, collaboration, and effective habits of mind standards. They also provide sample rubrics which furnish practitioners with a variety of assessment criteria and scoring methods.

Leadership

According to Leithwood (1992), school restructuring requires a change of administrative roles from a traditional to a transformational style of leadership. It requires that educational leaders clearly understand

the nature of change, alter traditional power structures, and develop fresh approaches to educational management.

Patterson (1993:3) defines modern leadership as "the process of influencing others to achieve mutually agreed upon purposes for the organization." He maintains that traditional administrative functions, such as direction, control, and coordination, are less important when the goal of the leader is systemic change. Patterson (1993) identifies those who possess the ability to open an organization to "participation, diversity, conflict, reflection, and mistakes" as the leaders who will successfully restructure schools.

Sarason (1990:95) argues that, unless the power relationships within the education system change, reform attempts will continue to fail. He asks administrators to lead, rather than hamper, the realignment of power in public education. If educational leaders are unwilling to share power, insists Sarason, the quality of public education systems will continue to decline.

Fullan (1991:353) contends that administrators must initiate the restructuring process without dependency on the "actions and policy decisions of others." He maintains that "preempting the imposition of change from the outside" occurs when administrators empower themselves, teachers, and students to create ongoing change (p. 354). The administrator's role must shift from what he calls organizational to educational power.

Educational change, according to Fullan (1991), has been, in most cases, a negative experience. To empower themselves and others, administrators should apply knowledge about learning to school management. Administrators should understand the nature of change and avoid being snared by empty rhetoric, bandwagons, and educational fads which so successfully delay school restructuring.

Conversion from traditional to transformational leadership requires that administrators re-examine the purpose of schools, promote professionalism, and develop school collaboration. Sagor (1992), Leithwood (1992), and Costa (1992) cite shared vision building as central to transformational leadership. Sergiovanni (1992) suggests proactive professional development which shifts teacher motivation from external to internal and creates the professional environment necessary to restructure schools. Loucks-Horsley et al (1992) identify professional development as the most effective tool in reducing staff isolation and fragmentation. They believe that if school leaders intend to put learning first, staff collaboration is vital.

Small Rural Secondary Schools

The issues of curricular irrelevance, ineffective classroom practices, and unproductive assessment techniques in rural schools are compounded by demographic and economic problems. Rounds (1991), Annis (1990), and Manitoba Education and Training (1990) provided pertinent demographic and economic data necessary for Manitoba rural education analysis. Rounds (1991) and Annis (1990) identified depopulation, decreasing farm income, declining school enrolments, and school consolidation as significant issues in rural education. Darnell and Simpson's (1981) description of rural education in Australia mirrored the conclusions drawn by Rounds (1991) and Annis (1990). In her overview of at-risk students in the United States, Helge (1990) confirmed the link between the decline of the rural economy, social problems, and declining student performance in rural schools.

Schmuck and Schmuck (1992) examined the educational problems facing rural schools and discovered that restructuring rural schools, like restructuring urban schools, requires rethinking curriculum, instruction, and assessment. They found a lack of curriculum adaptation and development procedures, little staff collaboration, reliance on outdated teaching techniques, and limited student engagement with learning. These problems, moreover, were perpetuated by adherence to traditional leadership patterns common in urban districts.

Gregory (1987) and Schmuck and Schmuck (1992) offered some solutions to rural education problems. Interestingly, Gregory (1987) cited smallness as the most important asset of rural school restructuring. He discovered that students in smaller high schools demonstrate increased commitment to learning, acceptance of diversity, engagement with the curriculum, and a greater sense of school as a learning community.

Schmuck and Schmuck (1992) argued that routine stakeholder cooperation is a prerequisite to improved learning in rural schools. Their list of stakeholders include students, teachers, principals, superintendents, and board members. The authors suggest that educational leadership provided by superintendents and principals is critical to creating meaningful stakeholder inclusion in high school education.

Summary

Review of the literature suggests there is a significant interest in high school restructuring. It supports the examination of fresh approaches to curriculum adaptation and development, instructional assessment practices, and educational leadership in order to translate the theory of restructuring into practice at the school level.

The work of Sizer (1984), and Powell, Farrar, and Cohen (1985), while conducted in the United States, discusses high schools comparable to those in Manitoba. The authors affirm that the apparent weaknesses of secondary education can be addressed through restructuring. Recent reform efforts in Manitoba have resulted in limited classroom level change, thus supporting Fullan's (1994) view that educational change must be a coordinated top-down and bottom-up process which focuses on teaching and learning.

In brief, researchers and practitioners conclude that transforming curriculum development and adaptation, instructional and assessment methods, and leadership practices is essential if high schools are to reach public expectations. The present study is designed to add to the existing body of literature regarding high school restructuring and assist those administrators commencing a restructuring journey.

THE MANITOBA SECONDARY SCHOOL SYSTEM

On three occasions between 1973 and 1994, Manitoba Education and Training attempted to reform Manitoba secondary school education. In 1973 The Secondary School: Report of the Core Committee on the Reorganization of the Secondary School, or Core Report, became the basis of the secondary school structure as it now exists. A second document, Challenges and Changes: The Report of Manitoba's High School Review Panel (1988), recommended changes designed to alter the high school program to more effectively respond to adolescent needs in a changing society. These two reports, while progressive and comprehensive, produced few lasting changes in Manitoba high schools. The impact of Answering the Challenge (1990), the most recent review of secondary education, is likely to be as limited as that of its predecessors.

Why have these top-down reform efforts had limited impact on Manitoba high school education? Examination of the Manitoba school system's structure, goals, instructional and assessment practices, curriculum, and leadership furnish insight into this situation.

Structure

"Bureaucratic", "hierarchical", "isolated", and "specialized" are words which characterize the structure of Manitoba's high school system. It is a system rooted in the economic and social circumstances of the 1950's when administrative authority was organized along traditional 'chain of command' lines.

The structural apex of the Manitoba high school system is Manitoba Education and Training. Here the Assistant Deputy Ministers of Administration-Finance and Program Development-Support Services manage the elements of the provincial educational bureaucracy pertinent to high schools and provide direction to each school division. Superintendents manage the divisions; principals, the schools. Following the pattern established by large industrial organizations in the past, each layer of the system looks to the level above for direction (Conley, 1993). This traditional model reflects many of the values which shape modern secondary school systems.

Henchey (1988:6) identifies a number of assumptions which characterize educational organizations like the Manitoba high school system:

1. Knowledge is a scarce commodity and ... schools have a monopoly on it.
2. There are certain forms of knowledge ... and certain forms of skill ... that should form the core of compulsory education to be consistent with the functions of schools: the social functions through the sorting of students ... economic (job preparation) and intellectual (mental discipline).
3. The rate and nature of social change are such that the period of compulsory schooling can be organized for those between the ages of six and sixteen, with the confidence that subsequent learning through life may be safely left to individual initiative or informal structures.
4. As institutions, schools are best modelled on the other social and economic institutions of the industrial society ... Schools separate learners by age, learning by subjects, time by periods, clientele by classes, and competence by certificates.
5. Our concept of schooling is rooted in a separation of life into periods of leisure (infancy), childhood and adolescence (learning), adulthood (work) and retirement (leisure).

Most Manitoba high school system administrators have been trained in this organizational culture. Conley (1993:312) describes the traditional organization of high schools as "a barrier to be encountered when attempting to bring about system-level change." This is definitely the case in Manitoba. The impact of this barrier is most apparent in the large gap between provincial educational goals and the realities of high school education in Manitoba.

Goals

The specific direction of Manitoba high school education is established by policy makers within the bureaucracy of Manitoba Education and Training. However, goal setting processes include consultation with the larger community. For example, The Core Report (1973), Challenges and Changes (1988), and Report of the Panel on Education Legislation Reform (1993) were prepared after exhaustive hearings were held throughout the province.

The most recent provincial goal statement has been recommended as part of an amendments package to the Public School Act of Manitoba. The goals of education, as outlined in the Report of the Panel on Educational Legislation Reform (1993:14), are:

- a) to provide basic, relevant, and academically sound education to all students;
- b) to provide equitable opportunities for all Manitobans to obtain quality education and training programs to meet lifelong needs;
- c) to work in partnership with parents and the community at large to develop the intellectual, physical, social, emotional, ethical, cultural and aesthetic potential of all students;
- d) to develop in students respect for rights of others regardless of race, colour, creed, sex or age.

In Building A Solid Foundation For Our Future: A Strategic Plan (1991), Manitoba Education and Training recognizes "excellence, equity, openness, responsiveness, choice, relevance, integration, and accountability" (p. 8) as the underlying principles shaping the goals of education in Manitoba.

Recently, the federal and provincial governments, as well as other agencies, have published a series of documents defining the basic skills Canadians need to adapt to the future. These skills include:

1. communication - speaking, reading, writing, and listening
2. thinking - problem solving and critical thinking
- creative thinking and innovation
3. technical - literacy relative to mathematics, science, and technology and computer literacy
4. social - teamwork, cultural sensitivity, and citizenship
5. personal management - responsible and positive attitudes
6. learning - adaptable, independent, and lifelong (MET, 1992, CCE, 1992, Government of Canada [Canada], "Learning Well ... Living Well", 1991)

Excluding technical skills, The Core Report (1973) and Challenges and Changes (1988) itemize essentially the same skills as necessary for life fulfilment. For example, The Core Report (1973) asserts that secondary schools should focus on communication, personal and social development, development of creativity, development of analytical thinking, and skill development (tools of learning).

The goals of education in Manitoba have not changed in twenty years. The Core Report (1973), Challenges and Changes (1988), and Answering the Challenge (1990) have offered educational leaders a consistent framework for improved high school education in Manitoba. However, until administrators lead efforts to restructure high school curricula, instruction, and assessment, it is unlikely that educational goals will be realized.

Any attempt to achieve the goals established for public schools in Manitoba will require systematic restructuring of curriculum, instruction, and assessment. Conley (1993:105) asserts that restructuring activities can be framed around 12 dimensions "grouped into three subsets--central, enabling, and supporting

variables." The central variables are "curriculum, instruction, and assessment" (p. 21). They are central because changing these has the greatest impact on the learning process. Examples of enabling and supporting variables include technology, school-community relationships, and governance. These latter variables, while important, are not as critical to the task of teaching and learning.

Restructuring, in a Manitoba context, requires that administrators and teachers rethink their beliefs about teaching and learning. Answering the Challenge (1990) requires divisional and school personnel to apply new beliefs about teaching and learning to curriculum, instruction, and assessment. Because curriculum, instruction, and assessment are closely related, change in one will result in change to the others. For example, teachers replacing lectures with project-based instruction will eventually find inquiry into alternative assessment necessary.

Change in curricular, instructional, or assessment practices initiate change in the enabling and supporting variables. For example, a staff implementing an interdisciplinary curriculum must, of necessity, inquire into different uses of instructional time and technology.

A critical element in restructuring activities is leadership. Although pressure to improve high school education is mounting among business leaders and educational reformers. Parents, teachers, and school trustees are suspicious of change. If the restructuring of high school education is to succeed, superintendents and principals must become transformational leaders rather than managers. They must interpret Answering the Challenge (1990) as an opportunity for change.

Curriculum

Manitoba's Department of Education and Training's role in curriculum development, implementation, and evaluation has faltered in recent years. Although sound educational goals for provincial secondary education exist, efforts to match a common curricular orientation to these goals are few. Without a common educational belief system to underpin the direction of provincial curriculum, attempts to change curriculum often move in opposite directions. Two recently developed curricula, Social Studies (Senior 3) and Skills for Independent Living (Senior 2), illustrate this problem.

Social Studies (Senior 3) is a transaction-oriented curriculum providing students and teachers with content flexibility. On the other hand, Skills for Independent Living (Senior 2), which was implemented in 1993, is a transmission-oriented curriculum. In fact, requests made by several school divisions to integrate the Skills for Independent Living curriculum with existing courses were denied by Manitoba Education and Training. This would seem to be a direct contradiction of Manitoba Education and Training's intention of integrating curriculum as outlined in Strategy 75 of Answering the Challenge (1990).

In recent years Manitoba Education and Training has overloaded the high school curriculum. AIDS Education: High School (1989), Violence Against Women: Learning Activities to Prevent Violence Against Women (1991), Health Education: Senior 2 (1993), and Skills for Independent Living (1993) are examples of recent additions to the existing high school program. This steady increase in content, combined with the rapid growth of knowledge in the core curriculum (Science, Social Studies, Language Arts, Mathematics), has created a difficult situation for high school teachers and administrators operating from a transmission orientation to curriculum.

Ironically, while the provincial curriculum is overloaded, many program topics are often duplicated. Two sample topics are 'racism/prejudice' and 'the resume.' Topics related to racism and prejudice appear in the curriculum guides for Skills for Independent Living (Senior 2), Social Studies (Senior 1-4), Psychology (Senior 4), and English - Language Arts (Senior 1-4). It is not uncommon for students to examine racism/prejudice issues every year, or more than once each year. It is not impossible for resumes to be prepared by students in at least 10 separate courses in a large Manitoba high school.

The issues of duplication and overloading reflect structural fragmentation and isolation common throughout many levels of the provincial secondary school system. Inadequate curriculum monitoring efforts at a provincial, divisional, or school level tend to exacerbate these problems.

Adherence to a transmission orientation to curriculum in most Manitoba high schools creates other problems. Because "personal knowledge is not considered a component of the curriculum" (Leithwood, 1986:23), many students find high school curricula irrelevant. The Manitoba science curriculum is an excellent example. Secondary school science education is geared to preparing students for university science programs. Student connections between science, modern technology, and the natural world are rare in many high schools. The trend is to cover material at the expense of serious student engagement in meaningful learning.

Curricular issues have a low priority in most Manitoba high schools. Limited professional development time often is spent on problems such as student attendance and discipline. Administrators often are uncomfortable with matters of curriculum and tend to avoid the topic. Consequently, the "operational curriculum" (Posner, 1992:10) in many Manitoba high schools is reduced to the textbook and teacher inspiration.

Answering the Challenge (1990) was prepared by Manitoba Education and Training in the absence of a common educational belief framework. Consequently, strategies pertinent to curriculum lack both coherence and direction. The report, however, includes strategies that indicate a change in curricular orientation. They include plans to review high school curricula and make changes in technology education.

In strategies 29 through 33 the delivery of the provincial technology education program was reorganized. Vocational curricula and provincial funding policies were altered to simplify student access to technical and business education programs. This latter change has created opportunities for Manitoba high schools to integrate technology and business curricula with science, mathematics, and language arts programs. These changes provide high school administrators with options to re-configure vocational programs to create partnerships with local businesses and non-profit organizations.

Strategy 75 authorizes a review of all secondary school curricula "to ensure program quality, scope, and rigor through the incorporation of ... the principle of integration of knowledge across subject areas ... language across the curriculum approach in all subject area instruction ... [and] differentiated instructional strategies and techniques to allow for curriculum extensions" (MET, p. 29). Implementing integration and differentiated instructional strategies would oblige Manitoba secondary teachers and administrators to rethink the delivery of provincial secondary school curriculum. Curriculum reorientation along the lines outlined in Strategy 75 would, in fact, restructure Manitoba high school education.

Any significant attempts at restructuring schools by way of the secondary school curricula will require action at the division or school level. The holistic approach to curriculum development described in strategy 75 is an invitation to educational leaders seeking opportunities to restructure schools. Because "strategy 75 will become a major focus of Departmental efforts" (MET, 1992:18), administrators should take the opportunity to broaden stakeholder input into curriculum and introduce a curriculum adaptation process as well as negotiated and interdisciplinary approaches to curriculum.

Instruction

Instructional practices in many Manitoba classrooms are not synchronized with the goals of provincial education. The lecture, note-taking, and assignment pattern common in many classrooms are a result of learning beliefs shaped without the benefit of meaningful professional discourse. The values teachers demonstrate through instructional practices often mirror the educational experiences they received in high school and university.

Most Manitoba high school teachers believe students are externally motivated. Marks, credits, parents, teachers, peers, and future security represent the kinds of pressure exerted on students to encourage learning. There are few cases in Manitoba high schools of instruction being organized around the premise that students are intrinsically motivated. Therefore, few attempts are made to match instructional strategies to student interest or ability. Some students, for a variety of reasons, do not respond to external forms of motivation. They become the failures or the ever-increasing number of 'weaker' students who ultimately drop-out of the system (MET, *An Education of Value For At Risk Students [Risk]*, 1993).

Manitoba high school teachers organize instruction around deeply rooted beliefs about curriculum. Most curricula in Manitoba high schools are transmission-oriented. Teachers, comfortable with this traditional view of curriculum, organize instruction to have students memorize factual information which is prerequisite to the next course or examination.

This problem is most clearly represented in high school science and mathematics education. The best Physics, Chemistry, or Mathematics teacher is that person who can transmit the most data into the collective class memory. Students who retain the most facts receive the highest grades and are able to proceed to university where the same process begins anew.

Instruction in many Manitoba high schools is structured to have students cover, rather than heavily engage, curriculum. Student engagement with subject matter often is shallow, therefore learning is superficial and irrelevant. Manitoba high school students, especially the bright and committed, experience difficulty in making any meaningful connections between what they learn and the larger world.

A typical Manitoba high school classroom is structured with the teacher at the front of the room and students, seated in rows, passively receiving information. The teacher asks the questions, both orally and in writing; the students answer. Instructional variety is introduced to the classroom through improved audio-visual equipment, occasional group work, and guest speakers. The fundamental relationship between the teacher and student remains the same: teachers perform and students watch.

The high school learning environment often is organized in ways which do not support all students. Teaching/learning methods characteristic of provincial secondary schools invariably focus on student deficiencies rather than on strengths. Teachers are preoccupied with instructional strategies designed to sort students rather than with nurturing learning.

The inordinate concern with gearing instruction to "general, specialized, advanced, modified, or applied" (MET, *Implementation of the High School Review [Implementation]*, 1992:8) levels demonstrates a subtle lack of respect for some learners. Students unable to adapt to traditional instruction are streamed into low level skill and drill courses. Here curriculum is watered down, but methodology remains unchanged.

These instructional patterns are a significant problem in Manitoba. This does not suggest that all secondary teachers are failures and their efforts futile. Many teachers, with appropriate educational leadership, are expanding their "strategic repertoires" (Brownlie, 1992:24). Teachers, more than any other group in the secondary school system, are aware of the limited results achieved using traditional instructional methods. However, restructuring practice will require that administrators organize professional development opportunities which encourage teacher examination of fundamental teaching and learning beliefs.

Effective classroom instruction in Manitoba has traditionally been the responsibility of secondary school administrators. Manitoba Education and Training provides a consultative role in as much as instruction is linked to curriculum. Therefore, it is no surprise that *Answering the Challenge* (1990) contained few strategies designed to address instructional issues. Those strategies which do affect instruction follow the pattern established by Manitoba Education and Training's approach to curriculum and assessment. Some

strategies presented opportunities for creating the constructivist high school classroom while others reinforced the existing instructional approach.

Assessment

Traditional assessment programs in Manitoba high schools are structured around diagnostic, summative, and formative evaluation methodologies (Cornfield et al, 1987). Diagnostic evaluation measures skill and knowledge levels against an established standard. Standardized diagnostic tests rank, sort, and label students. After diagnosis, teachers match curriculum and instruction to the students' perceived abilities and needs.

Summative evaluation refers to the tests and examinations which conclude a unit, semester, or year. Its purpose is to measure student content knowledge and generate marks for report purposes.

Formative evaluation consists of continuous measurement which occurs throughout a course or unit (Cornfield et al, 1987). Conducted on a formal or informal basis, it often includes the participation of student, teacher, and peers. Because of the ongoing and inclusive nature of formative evaluation, a closer connection to the learning process is created. This enables teachers and students to more effectively evaluate progress.

Traditional assessment is "largely a matter of quality control--of monitoring the 'products' to ensure that they [meet] standard specifications" (Jeroski, 1992:281). The limited success of traditional evaluation practice is reflected in the serious assessment problems which exist in most Manitoba high schools.

With few exceptions, Manitoba high schools are driven by traditional forms of assessment. Formal tests, provincial and divisional examinations, and product-oriented assignments generate the scores, grades, or marks reported to students and parents at the conclusion of each course. Today, marks are the currency of success or failure in Manitoba high schools.

Assessment difficulties begin with limited administrative ability to facilitate the creation of "a framework for assessment" (Paris et al, 1992:88). An assessment framework is a stakeholder-created statement defining valued student outcomes, measurement techniques, and reporting methods. Teachers, administrators, parents, and students rarely discuss assessment with the expressed purpose of creating a school or division-wide evaluation framework. As a result, schools and school divisions often fail to communicate generally accepted, consistent, and coherent evaluation policies to stakeholders. Without opportunities to develop and share assessment ideas, stakeholders are powerless to question traditional assessment methods.

General neglect by most Manitoba high school administrators in shaping assessment frameworks has led to inconsistent standards. Without stakeholder dialogue, collaboration, and reflection, the definition of standards varies from class to class. One teacher identifies standards "as those targets at which one aims" (Eisner, 1993:23), and another "as icons against which student performance is compared." Teacher obsession with standards never will be addressed without developing a framework to contain the evaluation debate.

Current assessment policies for most Manitoba high schools focus on technicalities rather than on the essential purpose of assessment. Schools usually have guidelines which fix test schedules, detail a final examination's overall value at each grade level, or list other traditional assessment regulations. However, assessment frameworks developed to improve instruction, or to determine the appropriateness of curriculum and materials, are limited.

Inconsistent assessment policies in many schools are related to problems which extend beyond measuring a student's high school achievement. Assessment is a power issue in many schools. Grades, marks, and exemption rights are directly, or indirectly, linked to attendance, behaviour, or other established methods used to enforce compliance. Also, assessment is one of many subtle, and not so subtle, tools schools regularly use in an effort to stream students.

In many high schools, problems which stem from an absence of an assessment framework are compounded by reliance on traditional content-driven evaluation practices. Conventional high school tests and examinations reflect traditional curricula and instructional practices that concentrate on measuring student mastery of isolated basic facts and skills. As a result, content-driven testing and grading procedures currently used in Manitoba high schools indicate that teachers value a student's ability to memorize content and prepare for tests rather than demonstrate a capacity to construct meaning from course curriculum.

Reporting is the final phase in the assessment process. The reporting method established by a school indicates which values shape the assessment process. A computerized report card with canned comments accompanying course marks and a parent-teacher conference date is standard in many high schools. A specific parent-teacher interview request indicates there is a problem at school. This type of reporting demonstrates student exclusion from the assessment process.

Government assessment policy for high schools is documented in Answering the Challenge (1990) and in a companion piece, Implementation of the High School Review: A Resource for Administrators and Teachers (1992). Analysis of these documents indicates that Manitoba Education and Training has taken a 'one step forward and two steps backward' approach regarding student assessment. On the one hand, the government strengthened traditional assessment by reintroducing standardized provincial examinations and mandated Senior 3 and 4 students write summative divisional examinations in core subjects. On the other hand, the government provided opportunities for experimenting with alternative forms of assessment by declaring "integration of knowledge across subject areas [and] the use of differentiated instructional strategies" a priority in Manitoba high schools (MET, Answering the Challenge [Challenge], 1990:29).

The reasons given for the reintroduction of provincial examinations include complaints from the general public "that the school system is not graduating literate and knowledgeable students and that achievement standards are not comparable from school to school and division to division" (Challenge, 1990:23). Such examinations are considered an appropriate method of establishing "students' potential for educational success". In other words, examination scores will be the basis for student admission to universities or community colleges.

The provincial examination schedule identifies one or two examinable subjects each academic year. The grades on the examinations represent 30 percent of the student's final grade in a particular course. For example, in 1991/92 Mathematics was examined while in 1992/93 Biology and Physics were selected. The Mathematics 300 examination was content based and divided between multiple-choice (representing approximately 60 percent of the instrument's value) and a long answer format. The examinations were scored and results, complete with summary reports comparing local high schools, were made available to divisional administrators. The examining procedures for Biology and Physics followed a similar pattern.

Largely because province-wide examinations are compulsory, traditional evaluation strategies have had significant influence on assessment practices in Manitoba secondary schools. The immediate impact of standardized content-based examinations has seen Senior 4 teachers 'teaching to the test' because low student scores on provincial examinations might be seen to reflect negatively on both a teacher's professional ability and a school's image.

The promise of alternative assessment, while an option for school administrators, remains much more uncertain relative to the reliance on traditional assessment methods. However, some progress has been made. A Manitoba Education and Training Language Arts document proposes that "[educators] move beyond the idea of testing and product assessment to an understanding of evaluation as a learning experience" (MET, Implementing Senior 1 and 2 English Language Arts [Implementing English Language Arts], p. 117). This statement seems to contradict the province-wide examination policy implemented through Answering the Challenge (1990).

Manitoba Education and Training, through implementation of Answering the Challenge (1990), has limited high school administrators to two assessment choices: the traditional assessment program and the traditional program combined with alternative assessment strategies. The decision to move in either direction is influenced by forces exerted on the school administrator. Decisions about assessment are shaped by community values, divisional learning policies, and a principal's administrative style. Assessment change requires knowledgeable leaders supported by a clearly articulated statement of purpose, mission, and belief.

Manitoba Education and Training required high school principals and superintendents to administer standardized examinations in public schools. However, developing "summative examinations in core subjects at the Senior 3 and 4 levels" (Challenge, 1990:24) is a divisional responsibility and can be interpreted in ways that best meet the needs of local high school students.

Leadership

Principals and superintendents in the Manitoba secondary school system secure their leadership positions by being promoted along a traditional organization ladder. The usual progression is from teacher to department head to vice principal to principal to assistant superintendent to superintendent. While secondary school administrators are expected to provide educational leadership and facilitate change (Fullan, 1991), the bureaucratic environment in which principals and superintendents function prevents them from fulfilling these expectations. Consequently, Manitoba secondary school administrators are inclined to maintain the structural status quo rather than initiate change.

Principals and superintendents in the Manitoba secondary school system, like their counterparts across Canada, are excellent technical managers. Technical management involves allocating resources, maintaining control, and monitoring staff. A typical secondary school principal spends most time on "administrative housekeeping and maintaining order"; the superintendent, on the other hand, spends most time in "managerial and political roles, not the instructional role" (Fullan, 1991:146, 194).

A traditional administrator in a Manitoba secondary school often lacks educational vision or promotes a personal rather than a shared vision. This results in the educational drift common in most Manitoba high schools. Without vision, administrators seek short-term managerial or public relations solutions to long-term systemic problems.

THE RESTRUCTURING PROCESS

Restructuring the Curriculum

Restructuring Manitoba's secondary school curriculum requires a clear understanding of curricular orientation or the "basic set of educational beliefs about teaching and learning [which] provides a framework for approaching curriculum" (Leithwood, 1986:16). The Manitoba secondary school curriculum can be usefully examined in relation to the "transmission, transaction, and transformation orientations" (Miller, 1988:4). Movement from a transmission to transformation orientation is a change process designed to include an increasing number of the "commonplaces of curriculum." The curricular commonplaces are: "learner, subject matter, milieu, and teacher" (Connelly and Clandinin, 1988:83-84).

Most curricula in Manitoba secondary schools have a transmission orientation. Divided into subjects, they are content-based and teacher controlled (Leithwood, 1986). A specific example of the transmission orientation to curriculum is found in Manitoba's Mathematics 104, 101, 100 (1982). The mathematics curriculum was developed exclusively by members within the educational bureaucracy and mandated by Manitoba Education and Training. The curriculum is a complete guide to Senior 2 Mathematics with general and specific goals stated for each ability level. The guide details the scope and sequence, specific time allotments, and content necessary to effectively complete the Senior 2 mathematics course. Assessment follows traditional testing procedures built around behavioral objectives.

The transaction orientation takes into account the learner and teacher, as well as the subject matter, and focuses on "inquiry, problem solving skills, and democratic decision making" (Leithwood, 1986:22). It allows considerable content flexibility within the curriculum framework. An example of a transaction orientation to curriculum is found in Manitoba's English Language Arts, Grades 9-12 (1987). It encourages teacher/student content choice based on student interest and need. Program content is subsequently integrated into various language processes such as writing, reading, viewing, speaking, and listening. Put briefly, transaction orientation defines content in relation to process.

The transformation orientation places greater importance on the learner, teacher, and milieu while de-emphasizing content. It is centred on personal and social involvement designed to 'transform' the student and society. It "integrates physical, cognitive, affective, and spiritual dimensions of learning" with interdisciplinary study and close student links to the community. (Leithwood, 1986:22). Its curricular emphasis is "holistic" (Miller, 1988:6). Assessment includes both conventional "modes that focus on skill and subject mastery" (Leithwood, 1986:22), and alternative assessment practices.

The restructuring of curriculum starts with the reorientation of a staff's thinking from a transmission to a transformation viewpoint. Three strategies administrators might employ to initiate restructuring through curriculum include: the introduction of a curriculum adaptation process, curricular negotiation, and interdisciplinary curricular experiments.

Curriculum Adaptation

The learning culture of each school is different. Tradition, environment, school-community relationships, and administrative style are among the factors shaping the learning process in a school. Curriculum adaptation is the process of merging a school learning culture with official Manitoba Education and Training curriculum. Blending culture with curriculum is both formal and informal. In most Manitoba secondary schools curriculum adaptation is informal.

Implementing curriculum in most provincial high schools is the responsibility of the classroom teacher. While teachers in larger high schools may adapt curriculum through subject-oriented departmental structures, most adaptations of high school curriculum consist of principals providing curriculum guides for individual teachers. Each teacher interprets them in isolation and implements them in terms of individual attitudes toward specific curricula, the teaching/learning process, and educational change in general.

Rarely is implementing new curricula a formalized process in which teacher teams collaborate to adapt curriculum to a specific school environment. Attempts to restructure schools through curricular change require administrators to establish a process whereby teacher teams are empowered to adapt curriculum relative to the larger context of each school's learning culture. Teachers must discuss curriculum change relative to commonly held beliefs about teaching and learning if meaningful change is to occur.

Case 1 - Curriculum Adaptation at Bennett High School

Bennett High School, a large performing arts magnet school, has initiated a restructuring process through innovative adaptation of provincial curriculum. During the late 1970's and 1980's, Bennett's enrolment declined from 2500 to 800 and the school faced closure. In an effort to prevent closure, administrators and staff decided to change the school's focus, moving it from a vocational/technical centre to a performing arts magnet school. This transformation, while painful, was successful. Today, Bennett's student population has risen to 1500 and is still increasing. Much of Bennett's magnet school success stems from a site-based curriculum adaptation process which encourages students to complete academic curricula while engaged in a performing arts program.

The adaptation of provincial curriculum at Bennett High School began with a staff-wide examination of learning. Teachers focused their discussions on learning by seeking answers to the following questions:

1. What do students need from school?
2. How do students learn?
3. What is good teaching?

After considerable debate, staff agreed the school should encourage, in a stimulating, empathetic, and ethical environment, the exploration and development of personal talents within a variety of learning situations. Curricular change was necessary to meet these learning objectives.

Because performing arts students at Bennett High School were committed to complex performance and rehearsal schedules, it was necessary to adapt curriculum to ensure a high degree of student flexibility and enough rigour to secure acceptable student achievement. The curriculum adaptation process was structured along existing department lines. For example, eight members of the English Department worked as a team to adapt the provincial English-Language Arts curriculum to Bennett High School's learning environment. The team divided each Language Arts (9-12) course into eight 15 hour segments. The segments were offered across the timetable to allow students to enter/exit a course at multiple points, thereby offering students opportunities to complete a course at an individualized pace.

Teachers in the English Department found that the curriculum adaptation process created an ongoing dialogue about curriculum development, instruction, and assessment. Teachers shared materials, ideas, and instructional problems. They were able to eliminate curriculum duplication and began to sequence language arts material with performance schedules in the school.

Negotiated Curriculum

One curriculum restructuring option available to secondary school administrators is curriculum negotiation. Negotiating the curriculum involves "deliberately planning to invite students to contribute to, and to

modify, the educational program, so that they will have a real investment both in the learning journey and in the outcomes" (Boomer, 1992:14). Negotiation requires that teachers share learning decisions with students. Previously, teachers differentiated instruction by breaking a transmission style curriculum into fragments suitable for digestion by individuals at different rates.

A negotiated curriculum motivates learners. "Learners will work harder and learn better, and what they learn will mean more to them, if they are discovering their own ideas, asking their own questions and fighting hard to answer them for themselves" (Cook, 1992:16). If learners share in curriculum decision making, teachers are creating learner ownership, democratizing learning, and ultimately fostering better teacher/student relationships.

Negotiating the curriculum does not mean all items are negotiable. Manitoba Education and Training curriculum guides provide the content framework for the entire high school program. However, most of them, while providing non-negotiable general content parameters, offer teachers considerable opportunity to negotiate with students. A Senior 3 Social Studies teacher, for example, should make clear to students that learning about immigration to Canada is a non-negotiable part of the curriculum. The same teacher can negotiate answers to the following topic related questions:

"What do we know already [about immigration]?"

What do we want, and need to find out?"

How will we go about finding out? [and]

How will we know, and show, what we've found out when we've finished?" (Cook, 1992:21).

Teachers and students develop new roles when negotiating curriculum. Teachers become facilitators; students become problem solvers and decision makers.

Case 2 - Curriculum Negotiation at King Collegiate

In 1986 King Collegiate was an aging technical school with declining enrolment. In an effort to preserve and improve the school, King staff began to restructure through a combination of curriculum negotiation and integration. Curricular change began when district administrators and King staff realized the school would close if enrolment did not improve.

As part of a larger reorganization of the district, King was designated a performing arts magnet school. However, most students in King Collegiate's immediate catchment area were not considered potential performing artists. Over 50 percent of the students attending King came from single-parent families and seventy students registered at the school during 1992/93 received social assistance. Staff considered the school population 'tough.'

The first stage of restructuring required staff to rethink their educational beliefs. King administrators and teachers summarized their teaching and learning values in the 'King Direction Statement.' The Direction Statement states that the purpose of the school is to provide opportunity and incentive for students to develop as completely as possible their abilities and interests. Student success at King would depend on staff recognition of student interests and the subsequent creation of appropriate curricula to stimulate those interests. This required staff/student negotiation.

The performing arts magnet at King drew enough students from outside the immediate catchment area to sustain the school. The woodworking, mechanics, welding, and printing shops were converted to a

television studio, stage, and other performing arts facilities. However, a number of students expressed interest in the technical aspects of the entertainment industry rather than in the performing arts. Therefore, Technical Theatre became part of the program.

Technical Theatre curriculum is designed to link technology with the performing arts. Teachers negotiate projects with groups of students interested in specific aspects of performing arts technology. Negotiation has led to Technical Theatre projects centred around lighting, set construction, pyrotechnics, sound, and video production.

Negotiation provides King students with the ownership and relevance necessary to make learning a meaningful experience. King students apply Technical Theatre skills to school-community partnerships. Many King graduates are working with regional theatre companies, including the Shaw Festival, and touring musical groups. This does not suggest that all King graduates are employed in the entertainment industry. However, skills learned through Technical Theatre are transferable to a variety of vocations.

Interdisciplinary Curriculum

An interdisciplinary curriculum requires "a knowledge view and curriculum approach that consciously applies methodology and language from more than one discipline to examine a central theme, issue, problem, topic, or experience" (Jacobs, 1989:8). Implementing interdisciplinary curriculum, like negotiating curriculum, necessitates new roles for teachers and students. Interdisciplinary learning experiences produce a holistic emphasis which enables the student to integrate knowledge in a meaningful context (Leithwood, 1986:23). Teachers, by linking the learner to the community, assist in a student's social development. An interdisciplinary approach is typical of the transformation curriculum orientation necessary for restructuring secondary schools.

An interdisciplinary curriculum can be designed in a variety of formats. The least complicated methods of integrating traditional curricula are the "parallel, complimentary, [or] interdisciplinary unit designs" (Jacobs, 1989:14). These patterns involve reorganizing curriculum sequence or bringing together different disciplines for a specified period, then returning to the discipline-based curriculum.

More complex structures are the "integrated-day [and] the complete program" (Jacobs, 1989:18). These models entail blending all disciplines around a curricular theme or problem. Integrated-day and complete program models often are used in alternative school settings.

Regardless of the interdisciplinary approach administrators select, evidence suggests that restructuring curriculum through integration has advantages for both student and teacher. Teachers found that students enrolled in 'Humanitas,' a Los Angeles interdisciplinary humanities program, attended school with increased regularity, were less likely to drop out, worked harder, and showed more growth in writing and content knowledge than students in the regular program (Aschbacher, 1991).

Restructuring curriculum along interdisciplinary lines is also an opportunity for teacher growth. Because teacher collaboration is central to any integration effort, teachers have the opportunity to create learning experiences which make high school education more meaningful to students.

Expectations of students enrolled in secondary schools restructured along interdisciplinary lines are high. Learners must research, plan, and synthesize information in an effort to solve relevant problems and address issues. An interdisciplinary curriculum is one way to engage students in these kinds of higher-order thinking skills because learning is organized "in ways that connect the real world" (Drake, 1993:2). Integrating traditional disciplines while increasing student understanding and content mastery (Jacobs, 1989) strengthens the connections between basic skills and content. Acquiring basic skills is important if they become keys to unlocking content which students value.

Case 3 - Interdisciplinary Curriculum at Meighen High School

Meighen High School staff began restructuring three years before the school officially opened. When the school opened in 1991, an interdisciplinary curriculum model was in place. The decision to integrate curricula was based on a learning belief statement developed by administrators and teachers while the school was under construction. Meighen staff believe that students are motivated through relevant learning experiences which encourage risk-taking, problem solving, decision making, and creative thinking. Meighen students are expected to be independent learners, responsible for taking control of their learning. Structuring curriculum in harmony with these beliefs required staff to rethink their curricular orientation. They initiated restructuring by integrating the curriculum.

The design option Meighen teachers selected was the complementary model. The complementary option brings related disciplines together to investigate topics, themes, or issues (Jacobs, 1989). Some examples of complementary curricula organized at Meighen are:

- a. Humanities (English, History, Geography, Drama)
- b. Science (Physics, Chemistry, and Biology)
- c. Science-Technology (Manufacturing [the equivalent of Manitoba's Vocational-Industrial curriculum] and applied Science)
- d. Business (Marketing and Economics)

Meighen staff considered Language Arts, Mathematics, and Computer Science curricula common to each cluster.

To accommodate interdisciplinary learning, Meighen's timetable is divided into large blocks and assigned to instructional teams representative of major curricular areas. One day each week is designated an enrichment/remedial block. This is time during which students and teachers negotiate advanced cross-curricular projects or upgrade skills necessary for completion of the regular curriculum. The timetable provides for a two-hour period called the curriculum continuity block -- a professional/curriculum development period granted curricular teams each week.

The interdisciplinary approach produced interesting results in each curricular area. For example, a class of 30 students in a Business class, divided into 3 or 4 member teams, was assigned a mutual fund project. The project required students to select a group of stocks, bonds, and other investment securities and prepare investment portfolios for potential teacher investors. Each team used various software packages to design a prospectus, develop year-end income statements, estimate future stock values, and prepare sales letters. The materials were sent to Meighen staff members who agreed to play the roles of potential investors.

In another case, two science students used a computer to match a musical score they had written to their animated film. Another group of science students worked on a project they called Project SWAT. Organized in cooperation with the local police department, Project SWAT was a simulation exercise that a SWAT team could use to prepare hostage taking training exercises. Students used computer-assisted drafting (CAD) software and the building construction laboratory to construct a model building with adjustable rooms, windows, entrance ways, and garage configurations. Police then used the model to prepare different hostage taking scenarios.

A group of Business and Science-Technology students, in cooperation with a local senior citizens' group, built 60 art tables for a senior citizens' art club. Students developed CAD, measurement, design, language, production, cost accounting, and social skills while completing the project.

Case 4 - Interdisciplinary Curriculum at Diefenbaker Secondary School

The restructuring of Diefenbaker Secondary School curriculum called for an evolutionary process taking place over 4 years. The mission of the school district, of which Diefenbaker is part, is to create a positive educational environment which values differences, enables students to reach potential, and prepares students for rewarding and productive lives. The interdisciplinary curriculum structure developed at Diefenbaker was initiated by a small group of Language Arts and Social Studies teachers attempting to structure learning experiences in a way which more closely reflected the district's learning statement.

Diefenbaker Language Arts and Social Studies staff have integrated History and English across grades 8 and 9 to develop a Humanities curriculum. Interdisciplinary curriculum development began as a small project designed to reduce course fragmentation, generate curricular continuity, and reduce curricular duplication. With administrative support, six Language Arts and History teachers applied for a small professional development grant which enabled the group to attend sessions dealing with cooperative learning, portfolio assessment, and curriculum integration.

The interdisciplinary curricular structure at Diefenbaker can best be examined by describing some of the activities taking place in a typical Humanities classroom. In a class of approximately 60 students, two teachers assisted students studying the Renaissance. Two groups of students explored the Renaissance by examining the concept of "place" in Renaissance life. These students studied the importance of setting in Shakespeare's The Merchant of Venice and the relationships of geography to definition of emerging Renaissance nation states. Other groups explored "the clash of cultures" in a Renaissance context. Some students examined anti-semitism through the study of The Merchant of Venice while others investigated conflict between European and Aboriginal cultures in the context of the Renaissance voyages of discovery.

The Humanities project has initiated other changes in Diefenbaker Secondary School. The interdisciplinary nature of the Humanities program has encouraged Science and Mathematics teachers to open a curriculum integration dialogue. Teacher pressure to change the timetable to accommodate inquiry-based learning activities is mounting, and the library staff have become advocates of integration because of increased student use of the resource centre.

Teachers feel the interdisciplinary curriculum process has broken down teacher isolation, reduced student/teacher conflicts, increased student academic responsibility, and generally made life more enjoyable for teachers and students. The only disadvantage Diefenbaker staff reported was the time commitment necessary for curriculum planning in the Humanities program.

Restructuring Instruction

Meaningful secondary school restructuring will be determined by the success educational leaders have in fostering change in high school instructional practices. In many Manitoba secondary schools changing instruction will require that teachers and administrators rethink the learning process.

Instruction is a learning experience which stimulates student, teacher, and curriculum interaction (Brownlie, 1992:21). Quality instruction generates improved student engagement with the learning process. The term constructivism (Conley, 1993:142) describes recent research which redefines the learning process. Constructivists suggest that learning is improved when students actively construct understanding through comparison of their old knowledge and new information. Learning is improved further if students share new understanding at a social level (Leinhardt, 1992:21). Defining learning in this context has dramatic implications for high school instruction in Manitoba.

The translation of constructivist thought into classroom practice means most Manitoba teachers must reconceptualize existing notions about how students learn. Secondary school teaching must become a process

of uncovering what students know, arranging appropriate activities to engage learners, and assisting students to synthesize already known with newly acquired information. Some examples of practice designed to apply constructivist ideas to the classroom are independent, project-centred, and production-driven learning.

Case 5 -Independent Learning at St. Laurent Catholic Secondary School

St. Laurent Catholic Secondary School opened in December, 1992. The new school offers a full range of high school programs including French Immersion, Business Studies, and Manufacturing and Construction Technologies. St. Laurent administrators and staff have organized the school to accommodate a new approach to instruction.

St. Laurent staff believe that students learn best when treated as independent and self-motivated young adults in control of individual learning experiences. Consequently, each St. Laurent student creates a daily timetable. A teacher advisor (TA) meets with 15 - 20 students every morning at 8:40 a.m. At this 10 minute session the TA completes necessary administrative functions (attendance, announcements) with the group and reviews each student's daily plan. The students then move to subject-based resource centres designed to accommodate a variety of learning activities. In each resource centre there is a series of learning guides students use to interact with provincial curricula. Between 11:30 a.m. and 12:20 p.m. students break for lunch. From 12:20 to 12:30 students return to their TA and learning continues until 2:40 p.m. when students report to their TA before leaving school.

The flexible time structure enables students to make choices with respect to which aspects of their learning need attention. While in the resource centres, students arrange groupings to suit learning style and tasks. Some students working on a History topic may work in small groups, while in Chemistry the same students may work in pairs. Students arrange the instructional format to accommodate individual preference.

Teacher roles at St. Laurent have changed significantly as a result of the instructional system. Teachers are resource persons, motivators, and advisors. Teacher teams in each resource centre assist students in finding and interpreting information. They help students develop language, organization, and research skills in the context of individual learning needs. The teacher resembles a coach/guide rather than a boss.

Every teacher at St. Laurent is a TA. The TA is responsible for the academic guidance of 15-20 students. Each TA monitors student progress across the curriculum, arranges career planning, and is in regular contact with parents. Teachers who prefer being a 'sage on the stage' rather than a 'guide on the side' are unable to function at St. Laurent.

The learning environment at St. Laurent presents unique opportunities to apply computer technology to education. St. Laurent administrators have enhanced instructional opportunities through a partnership with Unisys Canada Inc. Unisys uses St. Laurent as an educational software and equipment test location; staff and students at St. Laurent receive computers, technical assistance, and training.

Unisys installed a computer network linking the library and each resource centre in the school. The network, called ICON, is being integrated into curriculum learning guides. The system permits students to maximize problem solving and information processing tasks. For example, science students are able to complete routine experiments with software simulations. Software of this type releases students and staff from traditional laboratory 'set-up and take-down' time.

St. Laurent's technology committee, with assistance from Unisys staff, have integrated CD-ROM information retrieval technology with ICON. This allows a student working through a social studies learning guide access to full-text journal and newspaper articles. Technology at St. Laurent is designed to support the concept that students are independent learners. The computer, rather than being treated as a separate subject, is a cross-curricular learning tool available to meet the learning needs of every student.

Case 6 - Project-Centred Learning at Laurier High School

Laurier High School, built in 1971, is a large urban secondary school. St. Laurent Catholic Secondary School's design is based on the philosophy developed at Laurier. While St. Laurent administrators have invested heavily in technology and business partnerships, Laurier has complemented the individualized timetable approach with project-centred learning. An example of project centred learning is illustrated by examining 'Canadian Destinies: An Inquiry Into the Future of Canada.'

Canadian Destinies was a three day conference held at the school to investigate Canada's future in light of events surrounding the Meech Lake Accord. It was organized by a committee of English and Social Studies students and staff to enable citizens from across Canada to meet with the Laurier community to inquire into major political and economic issues facing Canadians.

Students involved in the project shared in a full range of planning, writing, problem solving, thinking, and team-centred learning experiences in preparation for the conference. They invited, confirmed, and coordinated the participation of over 30 leaders including Claude Beauchamp, Joe Clark, Preston Manning, David Bercuson, and Vivian Ayoungman.

Students of English were assigned various media coverage tasks. Journalism students interviewed, photographed, and video-taped the various conference participants. At the event's conclusion, students edited a mass of material and published a Canadian Destinies newsletter for distribution to the community at large.

Planning, organization, and participation in Canadian Destinies was an authentic instructional experience. Students were engaged in relevant "real world public problems" (Newmann and Wehlange, 1993:8) which had direct connection to student experience. The conference engaged students with their Language Arts and Social Studies curriculum at a depth rarely achieved by direct instruction. It created a learning environment in which learners asked the questions and teachers guided students toward the answers. Student strengths, rather than student weaknesses, became the focus of instruction.

A project-centred learning activity, like Canadian Destinies, is possible because teachers at Laurier accept student autonomy and encourage initiative. Only through instructional strategies developed to share the responsibility for learning will students acquire deeper understanding of their world.

Case 7 - Production Driven Learning at Tupper Community School

Charles Tupper Community School is located in an extremely poor urban neighbourhood. Tupper, while a K-8 school, has much to offer secondary school administrators interested in improving instruction. Junior high school administrators, in an effort to prepare students for high school, often structure the junior high school learning environment to resemble a miniature high school. The time table is fragmented by subject with students meeting as many as six different teachers each day. Tupper was no exception to this pattern. However, Tupper staff found that the existing structure created a situation in which teachers had poor relationships with too many students. In an effort to address the problem, Tupper staff completely reorganized instruction at the middle years (Grades 5-8).

Change at Tupper began with a staff re-examination of the school's mission and assumptions about learning. Eventually, the entire grade 5-8 program was reorganized to accommodate effective learning experiences. The staff was divided into two-member teaching teams: one with Mathematics/Science expertise, the other with an interest in the humanities. Each team was responsible for the instructional organization of 60-80 students each day. Two examples of the authentic learning experiences created at Tupper are book publication and problem-solving in Mathematics/Science/Industrial Arts.

Tupper students published *Dibaudjimiwin* in 1992. The book is a vehicle students use to display their writing and drawing. The *Dibaudjimiwin* publishing project provides students with elements of authentic instruction. Students engage in higher-order thinking while planning, writing, and conducting in-depth research in preparation for publication. Articles are connected to the student authors' world and writing reflects a variety of genre. "Brokenhead Reserve" is an example of historical writing based on research interviews. "Harvey Olsen: Aboriginal Artist" is a biography. "Curing Deer Hides" and "Making a Pow Wow Drum" are examples of process writing.

The publication project is authentic learning created around a production process. The product provides students with a meaningful purpose for language application and growth. The publishing process encourages language integration across the curriculum and has become a powerful tool in developing cultural awareness.

A grade 8 flight unit is an excellent example of the integrated problem-solving approach Tupper staff have introduced in Mathematics/Science/Industrial Arts. Students are organized into company groups and assigned the task of cost-effectively designing and test flying a model aircraft. Each student company is given a limited amount of research and development capital to purchase materials to build the gliders. Introduction of capital into the learning experience enables students to apply basic cost accounting skills to the project.

Students research different glider designs through a variety of sources, apply the knowledge they gather to existing experience, and build aircraft within the parameters imposed by limited resources. Each company purchases 'testing facilities' from teachers and a formal test flight of each prototype is conducted. Following the test flight, problems are corrected, modifications made, and an overall accounting reported to the teacher.

The flight problem encourages students to control their learning within the context of available resources and an integrated curriculum. Successful 'flight' completion requires that students work as a team to solve problems and achieve goals.

Restructuring Student Assessment

A teacher uses assessment to determine student progress, evaluate the effectiveness of instruction, measure the achievement of class objectives, and make plans for future instruction. Student assessment is central to learning; therefore, linking it to educational goals is vital. Because assessment is at the core of the learning process, changing the approach to it provides significant opportunity to improve student achievement, initiate the restructuring process, and bring the education system closer to achieving its goal (Conley, 1991). Assessment, to be effective, must be framed in the context of a new view of curriculum and instruction.

Construction of a sound assessment framework involves four separate steps or stages (Paris, et al, 1992). First, valued learning outcomes are identified by stakeholders. Second, appropriate instruments to collect student data are developed. Third, guidelines for evaluating, interpreting, and monitoring student data are established. Fourth, a clear method of reporting is organized.

Alternative assessment "applies to any and all assessments that differ from multiple-choice, timed, one-shot approaches that characterize most standardized and many classroom assessments" (Marzano et al., 1993:13). It "is a broader, more genuine picture of student learning" (Zessoules and Gardner, 1991:49). Two terms used interchangeably with alternative assessment are performance and authentic assessment.

Performance assessments include student demonstrations of specific learning tasks (Meyer, 1992). For example, assessment of the integrated Science/Mathematics/Industrial Arts flight unit at Tupper Community School involved groups of students designing, building, and test flying model gliders. Although students were assessed in traditional ways at various times during the unit, part of the assessment included a test flight with the teacher assessing the aircraft's in-flight performance relative to criteria developed cooperatively

with students at the beginning of the unit. Authentic assessment takes place in a situation in which a student "not only completes or demonstrates the desired behaviour, but also does it in a real-life context" (Meyer, 1992:40).

Another example, illustrating a much more comprehensive approach, is that of the Coalition of Essential Schools, a group of North American schools involved in the process of restructuring. Graduating students are required to demonstrate intellectual growth by means of exhibitions or public performances. These require the development of position papers and Socratic seminars. These activities, although common in many schools, led in this case to a staff review of assessment practices (McDonald, 1993). Preparation for an exhibition requires an array of related assessable skills including topic selection, critical thinking and writing, student-advisor conferencing, research, debating, and presenting. Traditional assessment methods, such as summative tests, are inappropriate to appraise these skills. Teachers, therefore, found it necessary to re-examine assessment methods and develop new rubrics for measuring skills and processes at each stage of preparation for an exhibition. Observational checklists, writing scales, self-assessment rating scales, peer-assessment forms, and holistic scoring scales are some assessment tools used to evaluate exhibitions. These tools, unlike traditional assessment instruments, bring assessment closer to meaningful learning.

Case 8 - Performance Assessment at MacDonald Junior Secondary School

MacDonald Junior Secondary School is a grade 8-10 school situated in a British Columbia suburb. During the last few years three significant events have initiated a change in assessment procedures at MacDonald. First, a new principal was appointed in 1990. Second, The British Columbia Ministry of Education published Year 2000: A Framework for Learning (1990). Third, the Ministry of Education, in cooperation with staff and parents, completed a school accreditation at MacDonald.

The new principal viewed teaching and learning as the central purpose of MacDonald Junior Secondary. Consequently, the Staff Development Committee's initial professional development project was to examine school culture. Discussions of school culture permitted teachers to explore their assumptions about teaching and learning. The dialogue about teaching and learning led to an evaluation of assessment practices at MacDonald.

The Staff Development Committee linked staff discussions about assessment to Year 2000: A Framework for Learning (1990). The latter is "the framework which will form the foundation for all program development, student assessment and evaluation, and reporting activities in British Columbia" (p. v). Assessment principles outlined in Year 2000 include statements to the effect that: "a wide range of assessment methods should be used ... assessment provides information learners, and their parents, need in order to make informed choices about directions for future learning ... [and] assessment should be seen by students and parents as an integral part of learning activities" (p. 10). MacDonald staff, with the educational leadership provided by the Staff Development Committee and principal, were empowered to investigate alternative assessment procedures within the context of these principles.

At the request of staff and parents, the Ministry of Education in British Columbia can authorize an intensive accreditation process in schools. Accreditation is a parent, teacher, and administrator evaluation programme focusing on school-community relationships, learning experiences, leadership and administration, professional development, and school culture. The aspect of accreditation dealing with learning experiences includes a thorough examination of assessment procedures in place at the school. This review encouraged staff to rethink existing assessment practices at MacDonald.

Assessment procedures at MacDonald had always been traditional. Evaluation/reporting occurred five times each year. The October report was an informal parent-teacher conference, with no formal report card being issued. Formal report cards were issued in November, February, April, and June. This structure began

to change when grade 8 science teachers inaugurated a performance assessment experiment called student-led conferences.

Student-led conferences are 15-minute meetings during which students present to their parents what they have learned in Science. Conferences centre around a student portfolio and science notebook developed during the term. Parents choose their conference date from three possible days within a given week. Science teachers schedule each family group in 15 minute slots between 4:00 p.m. and 8:00 p.m. Students, teachers, and parents complete a response form after the presentation. Teachers then meet with students to review the response forms.

An important feature of this conference format is that students realistically evaluate their performance. A primary purpose of assessment is to have students learn to self-evaluate. Through self-evaluation students take ownership of learning and become more responsible and accountable. Student-led conferences also are being introduced by the Macdonald social studies department.

Case 9 -Alternative Assessment at Trudeau High School and Turner School

Trudeau High School is a small town junior and senior high school. Turner School is an early years school. An alternative assessment experiment was conducted in an Environmental Studies 205 class at Trudeau. Environmental Studies 205 was a school-initiated course open to any Senior 2-4 student enrolled at the school. The course curriculum was developed by a team of teachers and central office consultants. Specific performance-based and authentic assessment instruments were introduced during class study of a pollution unit.

An objective of the unit was to have students, in groups of two or three, analyze pollution problems. The teachers could have approached the unit using any number of methods. The traditional approach would have had teachers lecturing and students copying notes. Lectures and note-making could have been supplemented with reproduced articles, video taped material, or question sheets on particular pollution topics. A more progressive teacher might have organized small groups in which students could work on teacher-created assignments. In this scenario, unit assessment would centre around assignments submitted at appropriate times with a comprehensive summative test at the unit's conclusion.

The teachers' actual approach was considerably different. The curriculum objective, analysing pollution problems, was the same. However, the teachers altered the unit's product, audience, and process to encourage deep and realistic engagement with course content, connections to prior knowledge and experience, and social interaction between multi-aged students. Each student group was assigned the task of producing an educational board game with a pollution problem theme. The audience for this game was the grade 3 class at Turner School. The learning process included creative and collaborative problem solving, inquiry, and analysis. Assessment included traditional and authentic strategies.

Completion of the unit required completion of the following steps: topic selection, preliminary interviews, development of assessment criteria, research and construction, game test, and whole class evaluation. Students were assessed at each stage of the unit.

At the topic-selection stage students were given large sheets of chart paper and asked to draw a web linking together their collective knowledge about different pollution problems. For example, one group circled the word 'pollution' in the middle of the page, then drew lines connected to the words 'water,' 'air,' and 'soil.' To the 'water' line they connected the words 'fresh' and 'salt.' Teachers circulated throughout the groups informally assessing progress and observing student interaction. After a specified time the groups were asked to select one pollution problem as the theme of their game. The teachers guided groups in different directions to ensure a broad spectrum of problems would be studied by the class. Some topics were solid waste management, acid rain, oil spills, nuclear waste disposal, toxic chemical dumping, and ozone depletion.

After charts were given to the teachers, students completed a modified "Group Evaluation Form" (Clarke et al, 1990:107). The evaluation form focused students' attention on assessing their group processes. The teachers met with each group to assess their prospects for success. If there were no problems, teachers filed the group forms for later reference. If there were problems, the teacher and students reviewed group progress and negotiated necessary changes.

After topic selection, students met at Turner School and interviewed groups of grade 3 students. The purpose of this preliminary interview was to initiate a dialogue, determine the level of grade 3 knowledge about pollution problems, and understand the children's board game preferences. Many children, aware of the reason behind the high school students' visit, brought their favourite board games to the interviews. The audio tapes made during the interviews enabled students to assess prior student knowledge of the ecological issues at both grade levels. Students were then ready to develop the assessment criteria for the project.

The teachers met the high school students and requested their assistance in developing the assessment criteria for the board game project. The question presented to the class was 'What are the characteristics of an excellent educational board game?' Before the class period was complete, students had generated a criteria list. For example, the game should incorporate aspects of other subject areas (like arithmetic or geography), the game should be durable and colourful, a student should understand more about pollution after playing the game, and game play should be enjoyable. The teachers used these suggestions to prepare a game evaluation form. The form was reviewed with the class before final printing.

With a clear understanding of expectations, grade 12 students moved into the next phase of the project: researching pollution problems and constructing the game. At this stage, assessment became a student responsibility. While searching for information, small groups of students revised plans to match available materials. The teachers supported any group experiencing problems by assisting the students in their search for material, their revision of goals, and the collection of data.

Once the games were completed, they were field tested with the grade 3 class. One teacher moved between groups and taped demonstrations with a video camera. The other teacher made observations while circulating among the groups. This process was an example of applied performance-based/authentic assessment. High school students demonstrated evidence of acquired knowledge in a realistic context. The final step was group evaluation by the entire high school class.

The unit was completed with project presentations to the high school class. The purpose of this presentation was to broaden student knowledge about pollution issues. After viewing the video tape of the grade 3's playing the game, each group connected its game concept to the specific pollution problem studied. Following discussion, students completed a Peer Evaluation Form developed using the assessment criteria prepared earlier in the project. The final mark was assigned after teachers and group members met, reviewed the evaluation file of assessment instruments, and agreed on a mutually satisfactory grade.

Curriculum and instruction for the pollution unit were consciously adapted to actively engage students. The teachers believed that "to know something is not just to passively receive information, but to interpret it and incorporate it into one's prior knowledge" (Herman et al, 1992:15). The unit assessment strategies matched curriculum and instruction. Students worked from strength in this unit. The flexibility of the assessment strategies both encouraged and enabled students to be rewarded for particular talents. Students benefitted from the democratic nature of the assessment strategies and accepted responsibility when given ownership of the task.

The teachers assumed a new role. Instead of occupying a position as "head of the classroom" (Zessoules and Garner, 1991:65), teachers served as observers, guides and assistants. This role released teachers from responsibility for dispensing content and classroom control, and allowed time for reflection. Teacher evaluation of the unit's strengths and weaknesses was a critical part of the assessment process.

Restructuring Leadership Roles

The successful restructuring of Manitoba secondary schools will depend, in large part, on the leadership qualities demonstrated by superintendents and principals. The restructuring of curriculum, instruction, and assessment requires that secondary school administrators rethink their roles as leaders (Mitchell and Tucker, 1992). School divisions launching restructuring projects need leaders willing to adopt fresh attitudes toward school organizations, power relationships, and management.

Traditional or transactional leadership styles (Leithwood, 1992) reflect those employed in business organizations of the 1950's. The traditional role of superintendent as political and fiscal manager (Boich, Farquhar, and Leithwood, 1989) is analogous to that of a 1950's corporate executive. Tradition-minded principals organize, direct, control, and maintain orderly delivery of high school programs in the same way a plant manager maintains production. While it is evident that some high school administrators have embraced the concept of instructional leadership (Bird and Little, 1985), the administration of Manitoba secondary schools remains overwhelmingly traditional.

The concept of instructional leadership, while preserving traditional power alignments, suggests that principals and superintendents address the following:

Curriculum and teaching: what is taught, how it is taught, and how students are organized for learning. The central but not sole object of instructional leadership is the behaviour of teachers toward subject matters, toward students and their parents and toward each other in regard to teaching" (Bird and Little, 1985:32).

According to Sarason (1990) the inability of educational administrators to accept new power relationships within the context of this reform movement has meant failure for most improvement efforts. Leithwood (1992:8) also suggests that lasting reform requires administrators to balance transactional and instructional leadership styles with the concept of "transformational leadership."

Administrators who successfully transform schools base their leadership on vision (Sagor, 1992; Leithwood, 1992), professionalism (Sergiovanni, 1992), and collaboration (Brown, 1992; Sergiovanni, 1992; Leithwood, 1992). These, in turn, are sustained by professional development initiatives, clear communication practices, and a belief in learning as the fundamental purpose of schools. Transformational leaders realign power relationships by converting hierarchically organized schools into learning communities (Costa, 1992). This process enables administrators to initiate and support the restructuring of curriculum, instruction, and assessment.

A strong and deep sense of purposefulness and a vision of the future is critical to successful restructuring (Costa, 1992). Transformational leaders initiate the development and continuous refinement of a common vision and of a learning belief statement through collaborative processes. Leaders use on-going discussions about learning and vision as opportunities to share knowledge with system stakeholders.

A transformational leader creates opportunities for change through professional development. Sergiovanni (1992:43) describes professionalism as "commitment to exemplary practice, valued social ends, and the ethic of caring." Traditional motivation techniques used by most principals and superintendents with their staffs depend on some form of external appeal to employee self-interest. For example, principals might reward motivated teachers with lighter teaching loads or fewer extracurricular activities. However, Sergiovanni (1992:44) argues that the most productive teachers are motivated by "intrinsic and moral reasons." Therefore, transformational leaders promote and receive from staff a high level of professionalism.

Case 10 - The Transformational Superintendent and Strategic Planning at Whitefish Bay Board of Education

James Weeks is the Assistant-Superintendent of the Whitefish Bay Board of Education. Located in Southern Ontario, the Whitefish Bay Education District encompasses seven municipalities and three major towns. Weeks is responsible for the seven Whitefish Bay secondary schools in a district which experienced a 50 percent enrolment decline during the 1970's and early 80's. This dramatic reduction was the consequence of a declining birth rate and the creation of a new Catholic Board of Education within the original district boundaries. This situation created an occasion for the application of transformational leadership skills.

These changes could have been viewed as opportunities or threats. Weeks selected the former. The external pressures on Whitefish Bay provided an opportunity for district administrators to examine the secondary school system in light of larger social, economic, and political changes occurring in the community. Administrators used the enrolment crisis as a chance to examine organizational values, to reassess district goals, and to identify proactive steps to manage reorganization. They also established a strategic planning process to restructure the district.

Strategic planning provided the framework for organizational change in Whitefish Bay. The three-year strategic planning process contained an important planning and management phase. The planning phase saw the establishment of committees supporting the strategic planning process, the carrying out of extensive research, and district-wide efforts to build a shared vision. The organizational structures included the establishment of a Strategic Planning and Management Committee, a Futures Committee, and a Strategic Directions Committee. The Strategic Planning and Management Committee, chaired by the Whitefish Bay Superintendent, was an executive committee established to provide a liaison with the Board, to allocate financial support, and to monitor progress. The Futures Committee held and synthesized information collected at a series of stakeholder forums throughout the district. The management phase was the responsibility of the Strategic Directions Committee. Following Board approval, the Strategic Directions Committee, in collaboration with each school's faculty, implemented recommendations emerging from the stakeholder forums. Assistant Superintendent Weeks was actively involved in each of these committees.

The research and vision-building stage of the strategic planning process began in 1990 and was completed by 1992. Stakeholder forums, held over a 22-month period, received information from every element of the public education system, day care associations, community organizations, the Ministry of Community and Social Services, library boards, the Chamber of Commerce, the media, municipal mayors, the college and university sector, and federal/provincial politicians. Two significant documents emerged from the initial phase of the process: the Whitefish Bay Board of Education's mission statement and the adoption of ten learning principles which would shape district decision-making into the 21st century.

Following the research and vision building stage, Weeks assisted the Strategic Directions Committee in identifying specific initiatives that schools would take to fulfil the district's mission. The Strategic Directions Committee published a list of 110 system initiatives it deemed necessary if education in Whitefish Bay was to be restructured around stated learning principles. Four such initiatives, grouped under the heading 'Learning Programs for Learning Success,' were:

1. Create a set of Common Essential Learnings which is consistent with the Ministry of Education guidelines, Whitefish Bay directions and students needs.
2. Establish a set of "exit outcomes" for the Ontario Secondary School Diploma based upon revised Ministry of Education policy, Whitefish Bay requirements and student needs.

3. Form Instructional Strategies Training Teams for school-based staff development in effective teaching/learning methods.
4. Explore new instruments/techniques to improve accuracy and authenticity of student assessment in key core curriculum areas.

The other 106 system initiatives were assembled under the following headings: 'Advocacy and Alliances for Learning,' 'People and Equity in the Learning Community,' 'Communications,' 'Collaborative Decision-Making,' and 'Resources for Effective Learning Environments.'

The 110 system initiatives were prioritized and will be implemented between 1992 and 1996. Called the management phase, this entails the implementation and evaluation of initiatives and their introduction into school management and professional development programs.

The effectiveness of the strategic-planning process is to be measured against 'indicators of success.' These are a list of specific items stakeholders thought should be monitored in order to ensure that the implementation of the system's initiatives would be effective. For example, stakeholders believed that one indicator of learning success is reflected by the number of students wishing to pursue further education. Hence a system of tracking secondary school graduates was arranged during the 1991/92 academic year.

Weeks, a transformational leader, has initiated major secondary school restructuring in Whitefish Bay. The seven secondary schools have been reduced to five, two being turned over to the Catholic Board. District administrators, in collaboration with stakeholders, then reorganized the five remaining secondary schools as magnet schools. Each principal understands that the path toward long-term restructuring of his or her high school system is centred around curriculum adaptation, improved instruction, and alternate assessment practices.

Case 11 - The Transformational Principal at Borden Junior High School

John Nicholson is the principal of Borden Junior High School, located in a large urban centre of Ontario. The school, which had an enrolment of 800 students in 1983, enrolled only 222 students in 1991. Built adjacent to a large secondary school, the school's location possessed certain physical advantages. On the other hand, it experienced drug abuse and ethnic gang rivalry problems.

Students at Borden are a complex ethnic mix. Forty-two difference languages are spoken in the school, and only 44 percent of the students started school in Canada. Specific languages include Iranian (12 percent), Tamil (6 percent), Romanian (5 percent), and Jamaican Patois (4 percent). In addition, the low and middle-income neighbourhood around Borden has been affected by recession. Most neighbourhood families are employed in the service sector of the economy.

Because Nicholson had demonstrated transformational leadership characteristics in other administrative positions, he was appointed principal of Borden. Approximately 30 staff are employed at Borden Junior High. Nicholson visits every classroom - every day. Each morning the principal greets, by name, each of the 325 Borden students as they arrive at school. Nicholson makes regular hallway tours and promptly deals with discipline issues. Nicholson observed that principals can be invisible in school if they accept too many central office committee appointments.

An administrator's knowledge of teaching/learning is critical. According to Nicholson, many principals avoid classroom encounters because they cease learning about education once they are administrators. Learning issues, which should be at the heart of school activity, are often supplanted by bureaucratic, public relations, and financial concerns. Nicholson believes modern school administrators, without thorough grounding in curriculum, instruction, and assessment issues, are ill-equipped to lead restructuring efforts.

During an informal interview, a group of 20 Borden students expressed their belief that their principal has high learning and behavioural expectations for Borden students. They also expressed appreciation of his efforts to involve them in school affairs. Nicholson, for example, initiated a committee of students and staff to establish a mini-school program at Borden. This program is based on a traditional house system model, but has expanded to include student participation in academic and social activities. The observed confidence and maturity of Borden students is due, in part at least, to this type of empowerment.

Borden staff also relate well to Nicholson's leadership approach. Staff describe Borden as a school struggling to make the transition from a traditional junior high school to a middle school. While Nicholson guides and supports change, final decisions are a result of parent, staff, and student participation. Nicholson, by promoting teacher professionalism, has empowered Borden staff. For example, collaborative teacher and administrator research has led to curriculum integration, creation of a student-teacher advisor system, and grade 9 destreaming.

A significant feature of Nicholson's administration is the adoption of a school planning process. Each year the staff and administration discuss the district mission statement in relation to vision and learning goals developed specifically for Borden. The process is a collaborative one designed to link desired student outcomes to specific learning strategies, available resources, and professional development opportunities. For example, the 1992-3 school plan for Borden Junior High School focused on four specific areas: literacy, numeracy, life skills, and environmental responsibility.

Four teacher groups selected different topics from the focus areas and developed action plans designed to improve each area. For example, the group responsible for literacy concentrated on strategies to improve student reading, writing, and oral expression. A sample of a specific action to improve reading at Borden was the replacement of class texts with a greater variety of reading materials in each classroom. The proposal to improve the reading material in each class was matched to regular teacher planning time to ensure the new reading materials would be used effectively. A similar collaborative approach was used by Borden staff, administrators, parents, and students in developing discipline, homework, and evaluation policies.

Nicholson's leadership style has transformed Borden Junior High School. In a district in which students and parents are free to choose schools, Borden's enrolment is increasing while overall student population in the district has declined by 38 percent. In 1992-93 Borden was recognized by the district as its 'most improved school.'

Summary

If Manitoba secondary school educators hope to achieve provincial educational goals, high school administrators must orchestrate fundamental change at the heart of the learning process: curriculum, instruction, and assessment. Fundamental curricular, instructional, and assessment change begins with a collaborative staff examination of teaching and learning beliefs.

"Meaningful, long-term change in education does not occur without curriculum reform" (Conley, 1993:125). The creation of high school curricula with the substance and relevance necessary to engage students in meaningful educational experiences will require that administrators initiate a curriculum adaptation process. This process should be based on the principles of curriculum negotiation and integration.

The most progressive curriculum is ineffective if educators are unwilling to match instructional practices to new directions in curriculum. Project-centred, independent, and production-based learning concepts complement a negotiated and interdisciplinary curriculum. Brooks and Brooks (1993:35) suggest that "posing problems of emerging relevance to students ... structuring learning around primary concepts ... [and] seeking and valuing students' points of view" are at the core of restructured instructional practice.

Inevitably, restructuring projects, initiated at the curriculum or instruction stage of the learning process, led to staff examination of assessment practices. The introduction of alternative assessment strategies are natural extensions of restructured curriculum or instruction.

Change occurs when knowledgeable leaders with a shared vision clearly focused on learning, encouraged risk taking, and expected professional excellence from staff. Transformational leaders understood that restructuring requires new administrative roles. The success of restructuring secondary schools depends upon administrators who are able to balance traditional management functions with the role of teacher and learner.

RESTRUCTURING THE RURAL HIGH SCHOOL

Secondary schools in rural Manitoba are organized in a variety of forms. While there are five large regional secondary schools providing a complete range of technical, academic, and business programs to student populations between 500 and 1500, most rural schools offer high school programs within K - Senior 4, 7 - Senior 4, Senior 2 - Senior 4, or 5 - Senior 4 configurations (MET, *Schools in Manitoba [Schools]*, 1990). Excluding reserve, northern, and colony schools, there are approximately 80 Manitoba secondary schools with enrolment under 250 students (1990). Because they are small, rural high schools offer unique restructuring opportunities.

The staff of small rural secondary schools, like those of large urban schools, are responsible for the realization of federal and provincial educational goals. As is the case in urban high schools, 70 percent of rural secondary school students fail to meet established national education goals (ECC, 1992). Many administrators attribute the deterioration of rural secondary school education to lower enrolments, less provincial support, and rural economic decline. However, the central issue facing rural and urban secondary schools is educational. To adequately prepare rural students for the challenges of modern life, administrators might consider support of curriculum, instruction, and assessment restructuring. The extent of economic and social change in rural Manitoba makes restructuring a priority.

Economic, Social, and Educational Change in Rural Manitoba

Rural Manitoba communities are experiencing major economic dislocations. Agriculture, the traditional economic mainstay of southern Manitoba, is in decline. Because farm incomes continue to fluctuate, rural families move to larger centres seeking employment (Annis, 1990). Improved transportation and continuous automation in the agricultural sector also contribute to rural depopulation. Lower farm income has exacerbated social problems in rural areas. Rural communities, once considered bastions of traditional family life, are experiencing social problems thought to be restricted to urban centres. A recent American study, for example, indicated that the highest percentage of high school students who were the children of alcoholics, lived in dysfunctional family situations, or were poor came from rural communities (Helge, 1990).

The school, of course, is an important element in enabling rural populations to adapt to economic and social change. Schools always have played an important role in rural Manitoba communities. Traditional contributions include entertainment by student athletes/performers and convenient facilities for community meetings or elections. Rural communities receive direct and indirect economic benefits from school division expenditures on salaries and materials. In today's context, however, it is important that school administrators expand traditional roles to prepare rural communities for a sustainable economy based on tourist and information-based industries as well as on agriculture and resource extraction.

Rural public school enrolment fell during the 1970's and stabilized in the 1980's (Rounds, 1991). As has been the case with their urban counterparts, previous attempts at secondary school improvement in rural Manitoba have been organizational rather than educational. During the 1950's and 1960's school consolidation resulted in the closure of 400-500 schools in rural Manitoba (Rounds, 1992). In an effort to imitate the program offerings available in urban systems, administrators built larger central high schools and transported students from adjacent towns and farms.

A recent exhaustive study of education in rural America identifies problems that parallel the Manitoba consolidation experience. Student participation in school affairs has been limited while input in academic matters has been virtually non-existent (Schmuck and Schmuck, 1992). Students in rural high schools have been more deeply engaged in extracurricular activities than in the academic curricula. In most rural secondary schools, staff collaboration to address learning issues was the exception, most rural teachers used the

lecture-test method, and teachers rarely discussed instructional improvement. Moreover, the Schmucks (1992:26) concluded that curricula in many rural secondary schools was "outdated and irrelevant."

The study exposed similar problems with leadership. Principals and superintendents seldom read professional or school improvement oriented material (Schmuck, 1992). Rural superintendents viewed building new facilities, managing the budget, and personnel duties as their most significant accomplishments. Schmuck's findings, while restricted to 25 rural districts in the United States, indicate a disturbing trend which can be extrapolated to rural divisions in Manitoba.

Although the problems confronting rural schools cannot be underestimated, many aspects of rural life make the prospect of secondary school restructuring possible. Small restructured high schools create several advantages for rural students and teachers. Students in small schools demonstrate participation levels between 3 and 60 times higher than those of students in large schools (Gregory, 1987). Because they demonstrate deeper engagement with curriculum, participating students are more responsive to innovative instructional or assessment practices. The stronger sense of school community, the acceptance of diversity, and the closer staff/student relationships (Gregory, 1987) common in most small schools make implementation of the restructuring process less complicated. Restructured secondary schools will improve the preparation of rural students for rural or urban life.

Curriculum

Adapting curriculum to a community's rural economy is feasible in a small secondary school. For example, business education students from Custer High School, a rural secondary school in North Dakota, recently developed grant applications for a senior citizens' housing unit, surveyed student spending patterns for local entrepreneurs, and conducted a tourism research project for the local Chamber of Commerce (Versteeg, 1993). Each of these site-based curriculum adaptation projects resulted in Custer's economic improvement. Innovative curriculum projects which develop meaningful student-community connections demonstrate that schools are valuable community assets while equipping students with life skills necessary for survival in a rural community.

Similar curriculum adaptation projects are possible for small rural Manitoba secondary schools. Duck Mountain School Division No. 34 and Intermountain School Division No. 36, two declining rural divisions (Rounds, 1991), present interesting possibilities. Within the boundaries of Duck Mountain and Intermountain are four small schools offering high school programs. They are Ethelbert School (K to Senior 4 - 200 students), Rorketon School (K to Senior 4 - 150 students), Winnipegosis Collegiate (Senior 1 to 4 - 210 students), and Gilbert Plains Collegiate (Senior 1 to 4 - 90 students) (MET, Schools, 1990).

Each school is located in a region with an abundance of recreational resources. Duck Mountain and Assinippi Provincial Parks, Riding Mountain National Park, Waterhen Lake, and Porcupine Provincial Forest are geographic focal points in a region rich in lakes, forests, wetlands, and rivers. As the traditional agricultural economy of the Duck Mountain-Intermountain region declines, it is being replaced by tourism and resource extraction industries. Providing high school graduates with the skills, values, and knowledge necessary to access the new opportunities would require educators, with the support of all regional stakeholders, to adapt provincial curriculum to local conditions.

Innovative community-based adaptation of Manitoba's Business Education curriculum could link entrepreneurship courses like Business 10G, Promotions 30S, Computer Applications 20G, and Seminar in Business 40S to local projects researching the potential of environmentally sustainable tourist activities such as cross-country skiing, mountain biking, back-country camping, and canoeing. Adaptation of the Business Education curriculum could encourage redevelopment of local Technology programs.

Part of the provincial Technology curriculum includes broad-based programs like Power Mechanics, Building Construction, Electricity/Electronics, and Food Services. However, offering relevant technical education in the Duck Mountain-Intermountain region would make the adaptation of provincial Technology programs useful. For example, Building Construction courses like Drafting and Surveying 20S, Framing 30S, Construction Electrical 40S, and Heating and Air Conditioning 40S should be adapted to the region's growing cottage industry.

A similar adaptation process would be necessary for a Power Mechanics program. Traditional Power Mechanics courses such as Basic Service 20S, Fuel Systems 30S, and Drive Trains 30S should be developed to include the small engine technology used in sport fishing/boating, forestry, and snowmobiling. This type of curriculum adaptation process would require close educational links between local business and schools.

While secondary schools provide generic academic and technology education, specialized business/technology learning experiences are best delivered in cooperation with local business. School divisions like Duck Mountain and Intermountain could provide fundamental business and technology curriculum at Senior 1 and 2, but advanced business and technology learning experiences would require secondary school/business partnerships at Senior 3 and 4.

The magnet school concept, as outlined in the Bennett High School and King Collegiate models, also is adaptable to rural districts. Curriculum adaptation to a magnet school concept is possible in a compact rural district like Midland School Division No. 25. In Midland each secondary school is a relatively easy commute from the other two high schools. The high schools are Carman Collegiate (7 to Senior 4 - 525 students), Miami Collegiate (7 to Senior 4 - 120), and Elm Creek (K to 12 - 255) (MET, Schools, 1990). Carman, the largest centralized collegiate, is capable of absorbing students from Miami (30 kilometres south-west) and Elm Creek (20 kilometres north). However, Elm Creek and Miami residents are determined to retain their local high schools.

Application of the magnet school concept means district administrators and stakeholders could develop, at Senior 3 and 4, a different curricular focus for the division's three high schools. Because Carman is the division's largest school and economic centre, the collegiate could become an integrated business, technology, and performing arts magnet. Miami Collegiate might develop a humanities/languages theme and Elm Creek an enriched science and mathematics focus. Students would select any district high school during the last two years of their secondary education. While maintaining core subjects, magnet schools would offer Midland students a more intensive learning experience and educational choice based on curriculum, career goals, and individual interests.

Small rural high schools provide excellent opportunities for application of interdisciplinary curriculum projects. Parallel, complementary, integrated-day and complete program models are compatible with most rural school divisions in Manitoba. For example, Mountain School Division No. 28, where high school programs are offered at four small high schools (two in French/English and two in English), could improve student learning opportunities with less cost.

Notre Dame Collegiate (7 to Senior 4 - 105 French/English students) and Somerset Collegiate (7 to Senior 4 - 65 French/English students) (MET, Schools, 1990) might develop integrated curricula across Senior 1 - 4 in compulsory secondary History, English, and Geography courses following the multiple grade concept developed at Diefenbaker Secondary School. An interdisciplinary curriculum combined with low enrolment would enable administrators to reduce costs by offering a complete high school program with a small staff.

St. Claude School Complex (K to Senior 4 - 270 English students) and Westmount School Complex (K to Senior 4 - 225 English students) (MET, Schools, 1990) could implement an integrated curriculum similar to the Meighen High School model. Complementary disciplines could be integrated into Humanities, Science, Science/Technology, and Business clusters to investigate a variety of local topics or issues.

Administrators at the St. Claude and Westmount School Complex could offer a more complete range of optional high school courses in a cost effective manner.

Small schools, with diverse ability groupings in each class and a broad spectrum of grades on site, offer a multiplicity of curriculum restructuring opportunities. Resource-Based Learning: An Educational Model (1994:3) details strategies teachers and administrators could use to accommodate "students' individual differences in learning styles, abilities, needs, interests, and prior knowledge base ... necessary for independent lifelong learning." The Distance Education and Technology Branch of Manitoba Education and Training is increasing the number of schools linked to the Manitoba Satellite Network (MSN) and the Manitoba Information Network (MINET). The development of distance education courses, prepared and delivered through Teacher Mediated Programs and Independent Study Programs, is increasing. Distance education technology and the resource-based learning model are valuable supports provided for educators planning to restructure curriculum in rural secondary schools.

Instruction

If rural secondary school administrators and stakeholders successfully restructure curriculum, restructuring classroom instruction is possible in any small secondary school. The closer relationship between teachers and principal in small schools enables easier implementation of various independent, project-centred, and production-driven learning opportunities. The options available to administrators are as varied as the many small high schools in the province.

The independent learning approach is particularly useful in large, sparsely populated school districts like Lakeshore School Division No. 23. Lakeshore School Division, located in the northern Interlake region of the province, delivers secondary school programs at Ashern Central School (K to Senior 4 - 430 students), Eriksdale School (K to Senior 4 - 220), Fisher Branch Collegiate (5 to Senior 4 - 221 students), and Lunder School (K to Senior 4 - 310 students) (MET, Schools, 1990). Interlake School Division is situated in an economically depressed region of the province. Therefore, as people leave the region in search of employment, school enrolment is declining (Rounds, 1991).

Independent learning is one approach school administrators could initiate to maintain existing high school programs and increase enrolments. A small rural high school like Fisher Branch Collegiate could restructure along the St. Laurent Catholic Secondary School model. A flexible timetable would be an incentive for adults to return to school as independent learners. Because independent learning accommodates diverse student learning styles, high school students would be less inclined to leave school before graduation. Independent learning is one way Interlake communities could maintain small schools while improving the quality of the local labour force.

Production-driven and project-centred learning, while possible in any small school, are especially adaptable to small high schools adjacent to large centres. Three examples are Elton Collegiate (7 to Senior 4 - 200 students), Sanford Collegiate (7 to Senior 4 - 260 students), and Ste. Anne School (K to Senior 4 - 360 students) (MET, Schools, 1990). Elton Collegiate, in Rolling River School Division No. 39, is located near Brandon. Sanford Collegiate, in Morris-MacDonald School Division No. 19, and Ste Anne School, in Seine River School Division No. 14, are situated near Winnipeg. Because of their situation on the fringe of major transportation and communication centres, small schools like Sanford or Elton would be able to organize projects similar to Laurier High School's Canadian Destinies.

Many production projects, similar to the publication project at Tupper Community School, require a population large enough to effectively market a product. For example, Ste. Anne school could manufacture and market recycled paper products through the high school Business, Technology, and Science programs. Proximity to Winnipeg would make marketing specialty cards or writing papers a more cost effective project.

Assessment

In any rural high school setting restructuring assessment processes to reward and improve academic achievement is possible. In spite of Manitoba Education and Training's return to content-based and province-wide examinations, alternative and performance assessment strategies can be integrated into small school instructional and curriculum restructuring plans.

For example, two high schools in Agassiz School Division No. 13 could implement a performance assessment process similar to MacDonald Junior Secondary School's student-led conference program. Lac du Bonnet Senior (7 to Senior 4 - 285 students) and Whitemouth School (K to Senior 4 - 340 students) (MET, Schools, 1990) are located in south-eastern Manitoba near Nopiming and Whiteshell Provincial Parks, an Abitibi-Price pulp and paper mill, Agassiz and Belair Provincial Forests, four Manitoba Hydro dams along the Winnipeg River, and Atomic Energy of Canada's (AECL) research laboratories.

The region presents a wealth of real topics, themes, or issues available to educators willing to adapt curriculum to local conditions. The products emerging from student investigation of local topics could be the focus of a student-led conference program. Stakeholder connection to Lac du Bonnet Senior or Whitemouth School would contribute to the community's understanding of important local issues.

Alternative assessment processes similar to those introduced at Trudeau High School and Turner School are easily adapted to small schools in rural Manitoba. For example, in Birdtail River School Division No. 38 two schools, Shoal Lake School (225 students) and Strathclair Community School (190 students) (MET, Schools, 1990), enrol students from K to Senior 4. This type of small school provides unique opportunities to link early and senior-years' curriculum to improve student learning experiences. Similar curriculum development projects could create situations in which authentic group, as well as self, and peer-evaluation strategies, successfully integrated into the Trudeau-Turner experiment, might be implemented.

Leadership

Innovative leadership, supported by research, strategic planning, and economic necessity, makes change in small rural secondary schools easier than in large urban divisions. Because the administration of small secondary schools requires fewer controls and is more flexible than that of large schools, change is a simpler process (Gregory, 1987). Lean central office bureaucracies in small divisions make unity of purpose possible. A small unified central office staff, complemented by empowered and competent school leaders, is better able to create a change climate than the larger central office staff in a large urban division.

The informal management structure characteristic of many rural divisions present opportunities to strengthen local decision making. Restructuring rural education requires that superintendents and principals, in consultation with the broad spectrum of system stakeholders, develop strategic plans which unify community economic, educational, and social goals. Strategic planning requires that superintendents and principals assist system stakeholders in learning about educational change.

The urgency of economic problems facing small communities has created a willingness to explore options. Therefore, educational leaders must expand their roles as teachers/learners. Organizing teacher curriculum, instruction, and assessment research groups, creating a division-wide awareness of successful high school restructuring experiments, and supporting the development of collaborative school management models are examples of the teaching/learning responsibilities of educational leaders.

The strategic planning model developed by James Weeks at Whitefish Bay Board of Education is of particular value to superintendents in Manitoba's 34 rural school divisions (Rounds, 1991). Administrators should use strategic planning processes to create the framework for change, build vision in cooperation with

a broad coalition of community stakeholders, and introduce specific initiatives to restructure rural high schools.

Principals are closer to the teaching/learning process in small schools (Gregory, 1987). Less reporting, a smaller staff, and fewer control problems enable an informed principal to cultivate whole staff participation in school-wide improvement. Principals promoting school-wide teacher planning, sharing, and ownership ultimately create clearer understandings of universal educational goals. John Nicholson, principal of Borden Junior High School, is an example of the way in which school administrators can empower parents, teachers, and students to restructure learning.

Like that of their urban counterparts, the successful restructuring of rural high school education in Manitoba requires that administrators recruit flexible and versatile teachers. Rural secondary school teachers must be generalists, capable of facilitating learning in many content areas. Rural administrators should understand that imitating urban high schools will fail. If administrators encourage teachers to capitalize on student differences, take risks, and build from the strength of the community, rural secondary schools will contribute to the survival of Manitoba's rural lifestyle.

CONCLUSION AND RECOMMENDED STRATEGIES

Restructuring is not an event but an ongoing process. Whether the catalyst leading to restructuring was declining enrolment, community pressure, or economic necessity, some Canadian schools have translated theories of restructuring into successful strategies. The cases presented here demonstrate that meaningful change occurs when secondary school educators rethink learning beliefs then match curriculum, instructional, and assessment strategies to those beliefs.

In each case community, tradition, and organization shaped a distinct culture in each secondary school. Consequently, emerging restructuring processes were different in each case. In one school, stakeholders launched the restructuring process by examining curriculum. In another, stakeholders initiated restructuring by investigating assessment practices. However, there were common threads woven into each case. These threads are synthesized as follows:

1. Successful secondary school restructuring began with an examination of stakeholder learning beliefs.
2. Significant restructuring required changing the learning process: curriculum, instruction, or assessment.
3. Restructuring one element of the learning process led to changing the remaining two elements of the learning process. For example, restructuring assessment led to restructuring curriculum and instruction. Restructuring curriculum led to restructuring assessment and instruction.
4. The momentum to restructure required the support and leadership of competent and committed school and division administrators.

Evidence indicates that change mandated from ministerial or divisional levels usually results in minimal educational improvement (Fullan, 1994). Successful restructuring strategies spring from the collaborative efforts of educational stakeholders at the school level given support and guidance from provincial education officials and division superintendents. The government of Manitoba has provided educators with the necessary frameworks for change in The Core Report (1973), Challenges and Changes (1988), and Answering the Challenge (1990). It is now the responsibility of stakeholders at each secondary school to shape high school education in the context of these guidelines.

A number of studies commissioned by both federal and provincial agencies and departments confirm that restructuring secondary education is necessary if Manitobans are to successfully meet future social and economic challenges (MET, STAC, 1990, ECC, 1992, Canada, 1991). In addition, the case studies presented here provide a range of useful strategies for stakeholders in restructuring the learning environment in Manitoba's secondary schools. Sixteen recommendations are made. Five are directed to Manitoba Education and Training, and four to educational administrators at the school division level, four to high school administrators and teachers. While three recommendations are aimed specifically at rural and isolated school communities, all recommendations are appropriate to any secondary school in the province.

It is recommended that:

Manitoba Education and Training

1. develop and communicate, in cooperation with system stakeholders, a common secondary school learning belief statement which is consistent with current educational research and established provincial educational goals and principles
2. introduce system-wide initiatives which support secondary school restructuring in the context of the learning belief statement
3. develop and increase long-term site-based professional development support for school divisions or high schools committed to restructuring high school curriculum adaptation, instructional practice, and assessment strategies
4. assist and support school-based curriculum development and educational research
5. develop and support learner-centred educational leadership institutes in cooperation with university education faculties, the Manitoba Teachers' Society, and school divisions.

School Division Administrators

1. establish, support, and lead formal stakeholder research groups mandated to examine and identify curriculum, instruction, and assessment restructuring opportunities present in the division
2. develop, in cooperation with a broad coalition of secondary school stakeholders, a strategic plan establishing the vision, educational goals, and priorities necessary to initiate curriculum, instruction, and assessment restructuring
3. delegate fiscal and managerial functions while expanding the role of the teacher/learner consistent with the goal of restructuring curriculum, instruction, and assessment
4. establish policies advocating the proactive identification of personnel who are capable of contributing to successful restructuring efforts

Secondary School Administrators and Teachers

1. develop and support long-term and consistent school-based professional development activities which focus on staff examination of learning beliefs
2. organize research teams mandated to study and share curriculum, instruction, and assessment restructuring possibilities in the context of established common learning beliefs
3. base decisions related to school organization on shared learning beliefs and current teaching/learning research
4. involve parents, students, and community leaders in curriculum, instruction, and assessment planning and introduction of restructuring initiatives

Rural and Isolated School Communities

1. increase support for long-term professional development projects, distance education, and educational research concentrating on the needs of rural secondary schools
2. support and assist parents, students, and community leaders in preserving small secondary schools and school divisions in rural Manitoba
3. encourage rural secondary school stakeholders to link local curriculum adaptation and development to community needs

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